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# Railway Age

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# Railway Age

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## The Railroads and Our Bankrupt Statesmanship

SECRETARY of War Patrick J. Hurley delivered an address before the Mississippi Valley Association in St. Louis on November 25 presenting all the familiar arguments in favor of the extensive development of inland rivers and canals. The supporters of inland waterway development are fortunate in being able to enlist as propagandists for their cause the highest officers of our national and state governments because their utterances have great publicity value, however worthless they may be as contributions to the solution of the nation's immediate transportation problem.

While Mr. Hurley was making his address the railroad industry was facing the most serious crisis in its history. "Whatever high state of development water transportation may reach," said Mr. Hurley, "the railroads will remain the backbone of our national freight transportation system." Apparently it has never occurred to him that it will not strengthen our national transportation system to break its backbone. Never were constructive suggestions and action by high government officials so much needed to help prevent disaster to the railroads as now, but while no such suggestion is made or act is done by any high government official, Secretary Hurley, speaking for the national administration, delivers an address favoring the expenditure of hundreds of millions of dollars upon waterways, in which he disseminates unfair and damaging propaganda against the railroads. Modern American statesmanship as applied to railroads has attained the zenith of stupidity.

### *Subsidies Fifty Years Ago and Now*

Mr. Hurley defended large government expenditures on inland waterways at present upon the ground that the government subsidized the development of the railroads fifty or more years ago. Apparently he is not aware that conditions in this country have changed somewhat since fifty years ago. In all parts of the country means of transportation were then wholly inadequate, and in most parts of the country consisted of horse-drawn vehicles on highways provided by nature. The government gave aid to the railways to help provide means of transportation where almost none existed. In spite of the government aid given, those

who then invested in railroads incurred great risks and often later suffered heavy losses.

At present the country has adequate means of transportation and the best railway service in the world. Government expenditures upon waterways are made now to promote competition with the railways and to enable shippers to get their freight carried at rates that are only about one-half the total cost of transportation, the burden of bearing the other one-half being imposed upon the taxpaying public. It must be a very obtuse or unfair mind that cannot see the difference between government aid given to provide means of transportation where they did not exist, and government aid given to provide means of transportation to compete with other and adequate means of transportation that do exist, and which represent a huge investment of private capital.

Furthermore, the railways have largely or wholly reimbursed the government for the aid long ago given to them, while it is not contemplated that the beneficiaries of waterway development shall ever reimburse the government for a penny of its expenditures on waterways. The railways to which money was advanced by the federal government have repaid it with interest. The land given to the railways was of very little value at the time, and railway development enabled the government to sell its own land at prices much higher than would otherwise have been possible. Finally, every railway that was given land grants was required in return to pay higher taxes or make the government reduced rates. The Illinois Central always has paid the state of Illinois seven per cent of its total earnings from its land grant lines. A decision of the Supreme Court of the United States more than fifty years ago held that government materials and troops must be carried at 50 per cent of the regular rates by most land grant railways, while some of them have had to carry government material and troops for nothing. Land grant railways have had to carry the mails for 20 per cent less than their regular rates, and the resulting saving in mail rates alone during the five year period ending with 1928 averaged \$2,050,000 per year. In 1928 the aggregate saving to the government in both freight and passenger rates resulting from the terms under which land grants were made to the railways was \$4,350,000.

The government has no land the value of which will be increased by the development of waterways. It will get no reduction of rates for transportation via them as it has from the railways as a result of its aid to them. Why was Secretary Hurley so partisan and unfair as to refrain entirely from alluding to any of these facts?

"The railroads are not justified in looking upon the development of our inland waterways with fear or enmity," said Secretary Hurley. "Water highways \* \* \* can move bulk freight more cheaply than any other means of transportation. \* \* \* The expansion of our industries means increased quantities of finished and fabricated products. The railroads will always remain the carriers of these products of industry. \* \* \* It means increased business for the railways. \* \* \* Rail and water transportation are supplementary, not competitive. \* \* \* As our population increases the railroads will, of necessity, turn to the carrying of freight demanding expeditious delivery. The work of transporting raw materials, fuel and heavy bulk commodities, the value of which is not affected by relatively slow delivery, must then be left to other carriers. The waterways will fulfill that function without detriment to the railways."

#### *Secretary Hurley as a Transportation Expert*

Mr. Hurley is not in any sense an expert on transportation matters; and yet he presumes to speak as if he were one, and, disregarding the arguments of those who oppose inland waterway development, uses the prestige of his position as a Cabinet officer to disseminate the views expressed in the foregoing paragraph, every one of which he has accepted without investigation from the most extreme advocates of waterways, and every one of which is economically unsound and misleading. There can not be cited a single case in the history of railroading where the development of inland rivers and canals has caused an increase in railway traffic. The claim that inland rivers and canals "can move bulk freight more cheaply" than the railways has repeatedly been refuted. If "the work of transporting raw materials, fuel and heavy commodities" is to be done by other carriers, then the railroads of this country must go into bankruptcy, because these commodities afford them the bulk of their freight business and the most profitable part of it.

While Secretary Hurley was speaking in St. Louis there was being published the annual report of the Interstate Commerce Commission for 1930, in which the commission said: "If railway finances were suffering only from the fact that a recession in business is being experienced, as in other industries of this country and of the world, it might be sufficient to point out that in judging of railway income one should in fairness consider the good and bad years together; but a different and more threatening financial difficulty confronts the railways. This is the effect of competition of other forms of transportation," and the commission specifically included the effect of "the competition of water lines." Secretary Hurley said that "rail and water transporta-

tion are supplementary, not competitive." Does Secretary Hurley know more about transportation than the commission?

#### *Benevolent Optimism at Washington*

While Secretary Hurley and the commission disagree as to whether rail and water transportation are supplementary or competitive, they agree in being optimistic regarding the future of the railways. They will not be harmed by government subsidies to waterways, says Secretary Hurley. "The country still needs its railways and can support them," says the Interstate Commerce Commission. The optimism regarding the future of the railways expressed by Secretary Hurley, who is doing what he can to destroy their earning capacity by advocating huge subsidies to waterways, and by the Interstate Commerce Commission, which is helping destroy their earning capacity by its regulation of rates, will not be received enthusiastically by railway managers who are struggling desperately to save the railways from disaster, or by the hundreds of thousands of railway men who are out of work largely because of such policies as Secretary Hurley and the commission favor.

Optimism is no substitute for statesmanship, and statesmanship at Washington regarding transportation matters is so soundly asleep that if Gabriel should blow his horn it would hardly grunt and turn over. If there is to be any statesmanship regarding railway matters it will have to come from railway executives, railway labor leaders, and business men, and not from government officials who express a bland, benevolent and soporiferous optimism while doing what they can to prevent solution of a problem of such gigantic importance to the American people as that presented by the existing railway situation.

## The Highway Crossing Problem

SEVERAL important points worthy of further study and comment were included in the report of the Committee on Railroad Grade Crossing Elimination and Protection, presented at the recent convention of the National Association of Railroad and Utilities Commissioners, and abstracted on page 1093 of the *Railway Age* for November 22. As Frank McManamy, chairman of the Interstate Commerce Commission, is chairman of this committee, the report may be assumed to represent a thorough study of the grade crossing problem, and the following discussion is based on data included in the report.

Although 321 grade separations were completed in 1929, there were 920 new crossings established or reported for the first time during that year, a net increase of 599 crossings, while a total of 242,809 crossings was reported on Class I roads at the end of the year. Therefore, the impracticability of waiting to solve the problem by the separation of grades is evident, which fact

serves to emphasize the importance of a more active program for providing automatic signals. According to the report, automatic visible-signal protection was provided at 1,703 crossings during 1929, making a total of 13,453 crossings now protected in this manner. Gates, watchmen, and automatic audible signals are in service at 16,637 other crossings, thus making a total of 30,190 crossings at which protection other than fixed signs, barriers, etc., are used.

It is of interest to note that the number of crossings protected by gates, watchmen, and audible signals decreased by 850 during 1929, visible signals being installed in most of these cases to replace the other protection mentioned. Therefore, automatic visible signals were provided during the year for only approximately 853 crossings not previously protected by other than fixed signs, which figure is only 254 in excess of the net increase in the number of crossings for 1929.

Thus it is evident that although the railroads are investing approximately \$5,000,000 annually for automatic crossing-signal improvements, to say nothing of the operating expense, such a program does little more than make a dent in the total number of crossings involved. It is doubtful, however, whether it is proper for the railroads to adopt a larger program for such improvements; rather, it would seem that a liberal proportion of the expense for an adequate program might well be borne by the public as users of the highways, as was expressed fittingly in the conclusion of the committee's report, which follows:

"The present grade crossing problem has developed as a result of changes in our method of living during the past two decades from which the public has vastly benefited, and it may well be that society at large should assume a larger share of responsibility for the solution of the problem and for providing necessary funds, the benefits from which would accrue largely to the users of the highways. Serious consideration should be given by the several states to this question and whether definite and increased allotments of funds for this purpose cannot be made from general taxes, gasoline or other special taxes, or bond issues. The grade-crossing problem is nation-wide, and the casualty record is sufficiently grave to warrant greater consideration throughout the country and to justify the expenditure of increased amounts of public funds to safeguard the traffic on our highways."

## A Neglect That Is Costly

THE operating ratio has long been recognized as having many shortcomings when used for comparing the relative efficiency with which railways are operated. Yet with all these shortcomings it affords the best available basis of comparison, at least of similar properties. In like manner a new unit, with all its weaknesses, is being developed to afford a basis for comparison of the relative efficiency of tie utilization. This

unit which is only now being made available through the collection by the Interstate Commerce Commission of statistics, first undertaken in 1927, shows the number of ties renewed per mile of maintained track. Like the operating ratio, this figure is influenced by many variables—standards of maintenance, percentage of treated ties in track, extent of uses of tie plates, density of traffic, etc. Yet with all these shortcomings it affords the best basis for comparing the economy with which the roads are making their heaviest single expenditure for maintenance of way materials.

The greatest value of this unit will be to bring out into the open the widely varying tie requirements of roads of similar climatic and traffic conditions and to focus attention on those differences in practice that contribute to these results. One such difference that is already being brought to the fore is the marked attention that is being given to the ties prior to their insertion in the track. Much emphasis has long been placed on the magnitude of the outlay for ties and on the possibilities for economy through the adoption of measures to prolong their life. Curiously enough, by far the larger part of this attention has been directed to the care of the ties after they have been inserted in track. The economy of treatment with preservatives is now so thoroughly recognized that it is no longer subject to argument. The economy of tie plates of adequate size as a means of preventing rail cutting is scarcely less well established. Of more recent inception, the fastening of the tie plates to the ties with lag screws as a means of eliminating wear and chafing is being accorded rapid recognition.

All of these measures are meritorious and amply warranted by the increases in tie life secured thereby. Yet they stand out in marked contrast with the neglect to which the tie is subjected on not a few important roads before it is placed in the track. This is most pronounced in the lack of attention given the tie during its seasoning period. On many roads it is still the practice to allow the ties to remain on the right of way until they are ready for treatment, even in areas where the weed growth is prolific and the danger of decay correspondingly great. In this respect these roads are neglecting precautions of basic importance for the purpose of making a slight saving in the cost of handling. This situation is particularly pronounced this year because many roads, in an effort to keep down inventories, have delayed taking up ties from their contractors longer than usual, with the result that the period of exposure to infection is correspondingly increased. It is inevitable that ties in which decay has gained a foothold will, even after treatment, give less than the maximum life, for treatment cannot restore life that has been destroyed by decay.

It is in this probably more than in any other one respect that the practices of the roads differ most widely and it is in this difference that much of the explanation will be found of the variations in tie renewal figures that are now being developed by the statistics of the Interstate Commerce Commission.



*Interior View Illustrating the Lighting and Upholstery Effects*

## C. & O. Imperial Salon Cars

*New cars for service on the C. & O. and Pere Marquette represent distinct step forward in luxurious equipment*

**W**ITHIN the last three weeks, the Chesapeake & Ohio and the Pere Marquette have placed in regular service 38 passenger cars which, in design and equipment, are a distinct step forward in providing luxurious comfort and convenience for passengers. The railroad has named these cars the "Im-

perial Salon Cars." The entire order of 38 cars was built by the Pullman Car & Manufacturing Corporation, and consists of two types, an undivided car and a combination smoking car. Twenty-seven of the undivided cars and three of the combination type are for service on the C. & O. while the remaining eight are of the undivided type for use on the Pere Marquette.

The outstanding features that have been incorporated in these cars are the type and spacing of the seats; complete concealment and automatic control of heating equipment; artistic color scheme and lighting; double sash windows with full-size screens for summer service, and a completely carpeted floor in the main body of the car, with rubber tiling on the floors in the wash rooms, toilets and vestibules. The two floor plan drawings and the accompanying illustrations show the arrangement of both types of cars.

### Interior Features

In the design of these cars, the mechanical, as well as the artistic equipment, has been selected with a view to providing maximum riding ease and absence of noise. There are 15 single seats on one side of the car with 15 double seats on the opposite side of the aisle making a total seating capacity of 45, exclusive of smoking and rest rooms. The seats are of the bucket revolving type, having a 22 deg. slope to the back and spaced on 44-in. centers. Particular attention has been given to comfort and on the side with the single seats an interesting feature is the fact that the seats may be turned in any direction without interference with any passenger, and one, two or three double seats may be so



**The Heating Coils are Concealed, with Louvres in the Side Walls—Thermostats Control the Temperature**

turned as to provide group accommodations for two, four or six passengers. Every seat is opposite a window so that the window posts of the car do not set up any blind spots in the passenger's vision.

The windows are equipped with double sashes, having full-size 24-mesh copper screens between the inner and outer sashes similar to Pullman equipment, while the outer sash is equipped with the Pullman type sash ventilator.

All the heating equipment of the car, which was designed and furnished by the Vapor Car Heating Company, is composed of radiation pipes concealed in the walls of the car below the windows, with louvers in the inside wall to provide proper heat circulation. The temperature of the car is thermostatically controlled by two units—one on each side of the car, working independently. Opposite the center of each window post, sockets have been provided for tables similar to those used in Pullman cars providing maximum comfort for four persons in facing seats on opposite sides of a table. The floors in these cars are completely covered with Norman Wilton carpeting, laid over Ozite cushion, except in the smoking compartment of the car, where a 27-in. aisle strip of the same kind of carpeting as the balance of the car is laid over rubber tiling.

The artificial lighting in the main compartment of the cars is provided by means of fourteen 25-watt side lamps and twenty-eight 25-watt ceiling lamps in Fandler fixtures. These fixtures provide seven ceiling fans in the main body of the car and, in addition, bracket fans are used in the ladies' rest room.

#### The Ladies' Rest Room

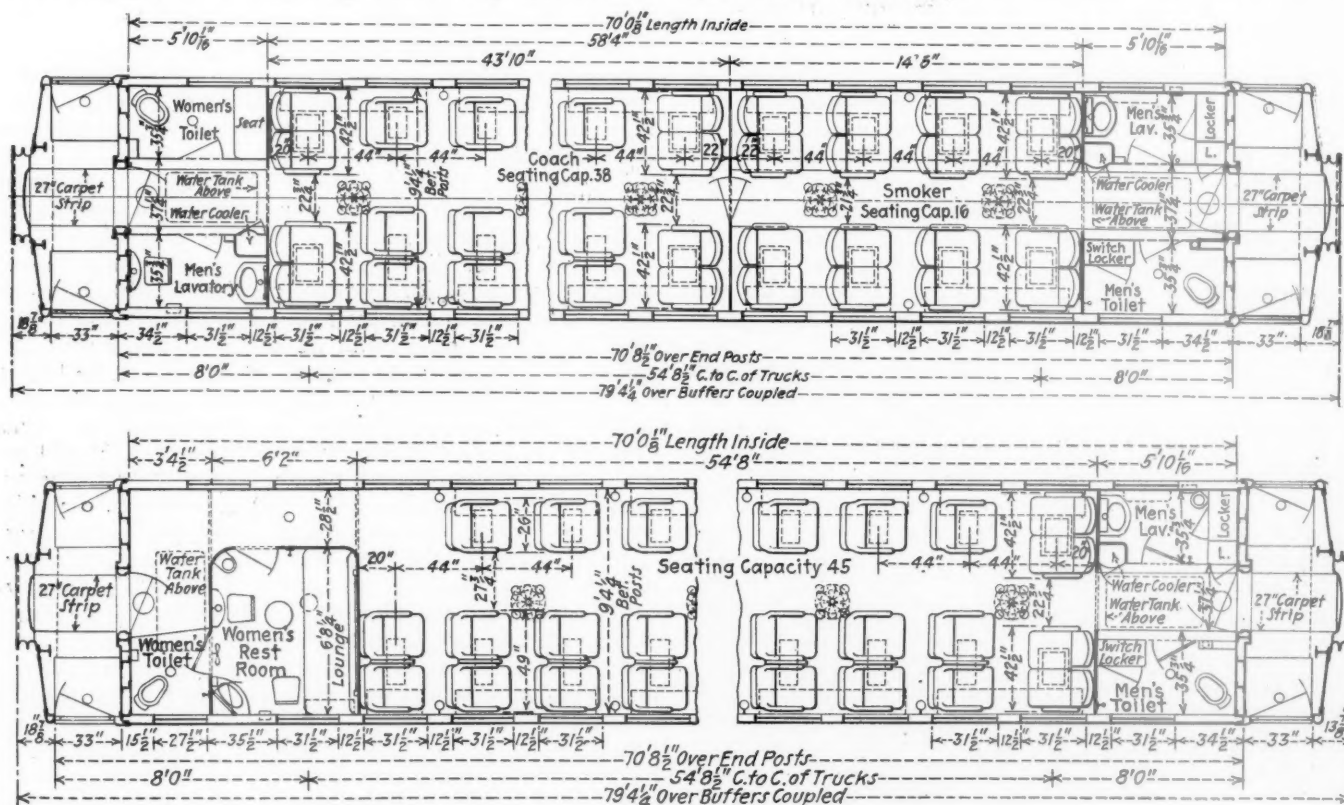
Much thought was given to the ladies' rest room which is both spacious and restful and fitted with many fixtures and conveniences that make traveling a pleasure. Along one side of the room is a large cushion back lounge 6 ft. 8 in. long with two plush covered



The Cars are Equipped for Tables at Each Seat Location

pillows for additional comfort. One of the accompanying illustrations will convey some idea of the appearance of this room.

The room is equipped with a vitreous china wash stand, with hot and cold water, and dental bowl, while between the two is a vanity and chair, with mirror above. A water cooler is located in the corner above the wash stand. The door opening into the toilet room is fitted with a full-length mirror and a long panel mirror is placed over the lounge back. The floor is completely carpeted with Wilton carpeting laid over an Ozite floor cushion.





A Corner of the Ladies' Rest Room

In one end of the undivided cars are the men's toilet and the wash room. The wash room is equipped with vitreous china wash stand, dental bowl and towel racks. A water cooler is also located at this end of the car. In the coach and smoker cars, each end of the car is fitted with a separate toilet and wash room. Vitreous china wash stands and water cooler are located at each end of the car.

#### Mechanical Features

The cars are equipped with Commonwealth cast-steel, six-wheel trucks fitted with roller bearings. Fifteen of the cars have Timken bearings, 15 have Hyatt roller bearings and eight have the American Steel Foundries units with Shafer roller bearings.

The trucks have rolled-steel wheels, elliptic springs with 40-in. centers and they are equipped with Simplex clasp brakes. The brake equipment on the cars is New York Air Brake Company's schedule "UC" 1-18.

#### Finish

The prevailing colors in these cars are green and gray with variations of these base colors in different groups of the cars. Ten C. & O. cars are finished inside as follows: From floor to window sill with medium dark green, above window sill to upper deck with two tones of green with green striping, upper deck with light green and green striping. Seats, carpet and window shades are in blending tones of green. Another group of ten C. & O. cars has the following interior finish. From floor to window sill, medium dark gray, above window sill to upper deck, two tones of gray with green striping, upper deck with light gray and green striping. Seats, carpet and window shades are in blending tones of green. A third group of ten C. & O. cars has the following interior finish: From floor to window sill, medium dark gray, above window sill to upper deck, two tones of gray with maroon stripe, upper deck with light gray and maroon stripe, seats, carpet and window shades are in blending tones of maroon.

The eight Pere Marquette cars are finished inside as follows: From floor to window sill with medium dark gray and above the window sill to the upper deck with two tones of gray with brown striping, upper deck with light gray with brown striping. Seats, carpet and window shades are in blending tones of brown.

The exterior finish of the thirty C. & O. Coaches and the eight Pere Marquette coaches is in Pullman green.

## Western Roads Ask for Stoppage of Rate Erosion

WASHINGTON, D. C.

**E**ARNESTLY urging that the trend of rate regulation be upward instead of downward and that there be "a stoppage of the constant erosion of our rate structure," the Western Association of Railway Executives has laid before the Interstate Commerce Commission a series of specific suggestions for action by it to relieve their serious revenue situation. These suggestions, they say, cannot be regarded as a panacea but are submitted "simply as a beginning," and the roads are not at this time asking for a general rate increase because the psychological effect might be bad. They insist, however, that the present general freight rate level is too low and the commission is asked to modify some of the requirements of its recent orders affecting grain and class rates.

These suggestions were made in a letter addressed to Chairman McManamy by a committee of ten western railway executives in reply to his letter of November 10 in answer to their earlier statement of their condition, in which he said the commission would give consideration to suggestions as to action deemed by the roads to be feasible. Charles Donnelly, president of the Northern Pacific, and H. A. Scandrett, president of the Chicago, Milwaukee, St. Paul & Pacific, also conferred with members of the commission on the subject on December 1.

The first definite suggestion of the roads is that the commission suspend for at least a year "during the existence of the present emergency" the operation of its order which they estimate will cause a loss of \$20,000,000 a year in rates on grain and grain products. They also ask an upward revision of the long-haul class rates in western trunk line territory, involved in the class rate order of the commission, so that they will not involve reductions, and the elimination of overhead rates between the East and West; relief from the increasing amount of reparation; a more liberal attitude toward fourth section relief; and recommendations to Congress for legislation regulating motor vehicle and pipe line transportation.

The executives said they did not include in their previous communication any specific suggestions as to necessary action because they desired to avoid a discussion of proceedings pending before the commission but that as a major portion of the freight rates is under consideration in its rate structure investigation, specific suggestions cannot be divorced from pending cases. The letter continues:

"We face the problem that in 1929, the best year for western railroads since the Transportation Act, 1920, became effective, we were short by \$96,764,000 of a fair return on the aggregate value of property as found by the Commission in 1920 plus property added since that time. More serious, however, is the fact that for the first nine months of the present year our net railway operating income is \$112,332,733 below what it was for the same period in 1929. Some railroads are having difficulty in meeting their bond interest, others have been required to reduce their dividends to stockholders and all have faced the necessity of effecting large reductions in the number of men employed.

"Since our original statement was presented, petitions filed by the railroads and others to reopen the proceedings entitled 'Grain and Grain Products,' 164

I. C. C. 619, have been denied. We therefore face a further loss in revenue of \$20,000,000 a year, which revenue loss we are in no position to meet.

"A specific suggestion on our part is that, in the light of the facts now present and the adverse change in conditions since the record in this case was closed almost two years ago, the operation of this order be suspended during the existence of the present emergency and for a period of not less than one year from January 1, 1931. We ask this so we may be relieved of the necessity of coping with this further drastic loss of much needed revenue in the face of the acute situation which confronts us. We cannot hope to recoup this loss of revenue from other traffic prior to the date these reduced grain rates are required to be made effective under your order.

"The present situation is the result of conditions to which we called your attention in our previous communication, many of which could not have been foreseen either by regulating authority or by the carriers. It has affected the entire railroad industry, including bondholders, stockholders and employees, as well. We believe our request to suspend the operation of this rate reduction during this emergency or, at least, until some other means of recouping the loss in revenue shall have been provided, accords with sound public policy and, if granted, will be in the general public interest.

"Another situation of immediate importance is that which confronts us in respect to class rates in the Western Trunk Line territory. An appropriate upward revision of the long haul rates so that they will not involve reductions and the elimination of overhead rates between the East and West so that we may continue in effect the present combinations based on Chicago and related gateways, would relieve us of meeting drastic reductions on this traffic.

"Another burden from which we believe we should be relieved is the increasing amount of reparation which we are being required to pay on past shipments. This constitutes a serious inroad upon current revenues. We ask that consideration be given by the commission when dealing with these matters to the effect upon railroad revenues of such reparation payments.

"Another suggestion is that a more liberal attitude upon the part of public authority toward fourth section relief so as to enable the rail carriers to compete with the water carriers would be helpful and, we believe feasible.

"Recommendations to Congress for legislation regulating motor vehicle transportation and the transportation of artificial and natural gas and requiring certificates of convenience and necessity for all pipe line construction, including oil, gas and gasoline, would be helpful.

"An investigation and study by the commission of inland waterway transportation, its cost and the effect of this competition upon the rail carriers would, we believe, be helpful and desirable. We specifically request that the commission fix water rates on a basis that would enable private water carriers to operate at a profit rather than on the present arbitrary 20 per cent reduction from the rail rates. We also specifically request that in prescribing divisions between rail and water lines that the rail carrier should in no case be required to accept less than if the interchange were with a connecting rail carrier.

"We have heretofore proposed a horizontal increase in freight rates in the western district as an appropriate medium for increasing our revenue. This method was disapproved by the commission in revenues in the west-

ern district, 113 I.C.C. 3, decided July 14, 1926. In other proceedings, including the rate structure investigation, we have opposed reductions in rates on particular commodities, and in some instances have proposed increases, in an effort to maintain our revenues, but have, in many instances, involving commodities moving in large volume, been unsuccessful to the extent of witnessing a downward instead of an upward revision of our general rate level.

"We wish to thank you for this opportunity to express our views which we have stated with a sincere desire to ameliorate the difficult problems now confronting the commission, the railroads and the general public to the end that there shall be no impairment of railroad service in the western district. Our suggestions made herein cannot be regarded as a panacea. Indeed, they are simply a beginning. Despite the fact that the need of western carriers for an increase in rates is now greater than ever before, we are not at this time asking a general increase.

"We are withholding such application not because we believe the situation does not warrant it, but because the psychological effect might be bad, and it is our purpose and desire to do our full part in the restoration of normal business conditions. The fact, however, that in 1929, the year of greatest volume of railroad traffic, and the year of greatest prosperity to industry in general, the western railroads earned far less than a fair return on the value of their property shows conclusively in the light of the improvements in operating efficiency and the heavy investments of additional capital, that the general freight rate level is too low.

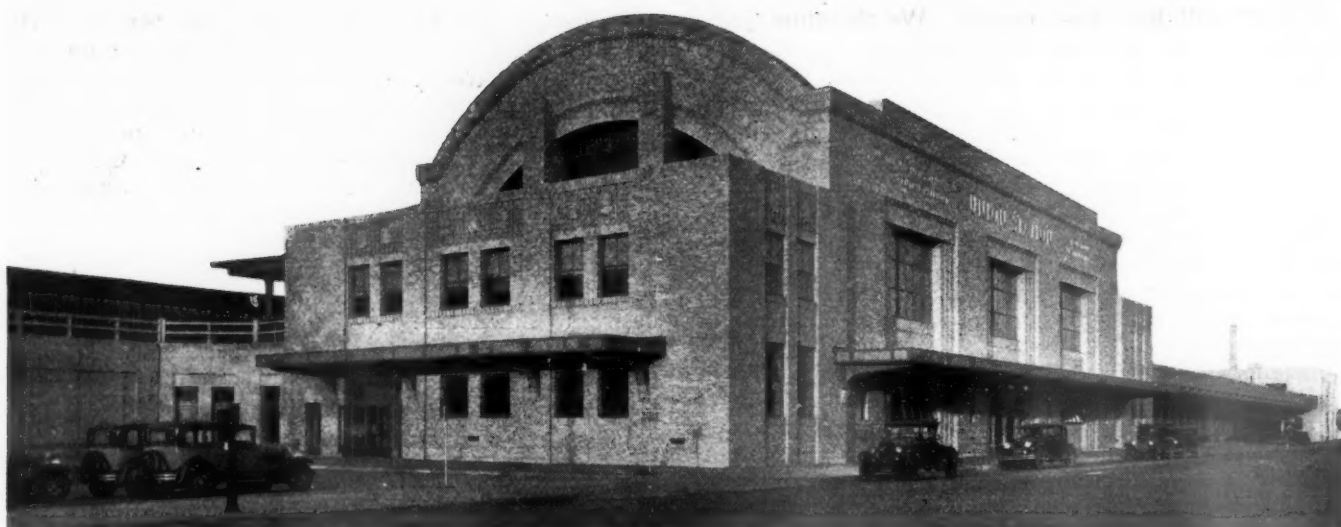
"The whittling of freight rates by regulatory tribunals, and by what are termed voluntary reductions by the carriers, which are in most cases involuntary, can only be offset in our judgment by increases made from time to time in the general level of rates.

"The present situation of the carriers is in large part the direct result of regulation which has reduced our rates under orders which continue in effect until further orders of the commission. This, of course, is a situation wholly within the control of the commission. We earnestly urge that the trend of rate regulation be upward instead of downward and that there be a stoppage of the constant erosion of our rate structure. We believe it is universally admitted that the carriers are honestly, efficiently and economically operated, and urge some speedy financial help in order that this efficiency may be continued."

\* \* \*



A Track View on the Nickel Plate Between West Ft. Wayne and Hadley, Ind.



*Exterior of Passenger Station*

## Eliminate 29 Busy Grade Crossings

*New York Central and Grand Trunk Western complete extensive track elevation and construct joint facilities at South Bend, Ind.*

THE New York Central and the Grand Trunk Western have completed track elevation projects of magnitude through the city of South Bend, Ind., which involved the elimination of 29 important street crossings at grade and of an interlocked railway grade crossing. In carrying out this work it was necessary for the Grand Trunk Western to build 1.3 miles of double-track main line, including three street subways and a six-span steel bridge over the St. Joseph river, the latter structure also separating the grades at two streets. When this was done, approximately one mile of main line which traversed Division street through the heart of the city was abandoned.

The New York Central elevated its tracks for 2.5 miles and extended its four-track system through the city. This involved the construction of 6 miles of temporary main tracks and 12 miles of permanent main tracks, 10 miles of which are laid with new 127-lb. rail and 2 miles with 105-lb. rail; the placing of more than 440,000 cu. yd. of filling; the construction of 8,200 lin. ft. of heavy retaining wall, which, together with bridge masonry and the walls and foundations for the passenger station, required the placing of more than 50,000 cu. yd. of concrete; the erection of 11 steel bridges, each carrying from four to eight tracks; the construction of enlarged passenger facilities, including a union station; and the installation of an extensive interlocking and signal system. As a necessary part of this work and preceding the elevation of the tracks, a new modern freight house and team tracks with paved driveways were built on a new site which provided room for present enlargement and later expansion. The cost of the project carried out by the New York Central was approximately \$8,000,000 and of the Grand Trunk Western project \$1,800,000.

For a number of years the continued industrial development of South Bend had created increasingly serious

hazards at the numerous grade crossings over these two railways. The New York Central passes through the city from northwest to southeast, immediately south of the business district. Prior to the completion of the track elevation, the four-track system of this road ended near the westerly city limits, from which point two tracks continued east to Elkhart, Ind., 15 miles, where the line again expanded into four tracks. The double-track line of the Grand Trunk Western entered South Bend from the east, merging into a single track through the city, and extended due west through the business district, occupying Division street which carries a heavy vehicular traffic, and from which it turned southwest to cross the New York Central at grade, where double track was resumed.

Extended negotiations resulted, in 1924, in separate agreements between the railways and the city for the separation of grades and the removal of the track in Division street. A track-elevation contract ordinance was passed on January 9, 1925, under which the New York Central was to elevate its tracks and replace its passenger station with new facilities. The Grand Trunk agreed to relocate and elevate its tracks west of the St. Joseph river, so that they would lie north of and immediately adjacent to the New York Central, and build a separate passenger station. The latter road began the preparation of plans at once and started actual construction on May 10, 1927. It was necessary for the Grand Trunk to acquire considerable property, however, this being a slow process owing to the congested district through which its line was to pass, so that the starting of its work was delayed.

### **Agree to Joint Facilities**

In the meantime a supplementary agreement was consummated between the city and the two railways, whereby

the relocation of the Grand Trunk was altered to enable it to operate over the New York Central tracks west of the river and use the station facilities which the latter was constructing. A supplementary contract ordinance was passed and after several minor amendments was accepted by both roads. This final agreement made no fundamental change in the New York Central plans. It was necessary, however, to make minor revisions in the track arrangement at each end of the section over which the Grand Trunk was to have trackage rights to provide for the Grand Trunk connections, to alter the details of two steel bridges and to extend the signal system to provide for interlocking the junction switches. This agreement also made possible the elimination of the crossing and interlocking plant at the point where the tracks of the two roads formerly crossed.

The final contract gives the Grand Trunk Western trackage rights over the New York Central for 1.54 miles and the joint use of the union station and passenger facilities. The old line of the Grand Trunk west of Michigan street has been removed from Division street, but that part east of Michigan street remains to serve the freighthouse, the team tracks and a number of industries which are located on this part of the line.

#### New York Central Track Elevation

The primary purpose of the New York Central in elevating its tracks was to eliminate the growing hazards which were presented by the street crossings at grade. A secondary but important reason was that by doing this it became practicable to extend its four-track system through the city and thus afford an opportunity later to fill out the gap which now extends to Osceola, the first station west of Elkhart. Furthermore, there was a pressing need for expansion of its passenger facilities, which could best be accomplished by removal of its tracks from street level.

The track elevation proper begins about 0.5 miles west of the former crossing with the Grand Trunk Western and extends easterly for 2.5 miles on earth fill. The section between High street on the east and Chapin street on the west is confined between heavy retaining walls, with discontinuous retaining walls at several other points. The tracks are carried over the streets on steel bridges which are independent structures for individual tracks, except at High and Main streets where Bethlehem beams encased in concrete are used in order to accommodate turnouts and crossovers. The extension of the third and fourth tracks began a short distance west of the limits of the track elevation and ends at the eastern limits of the work, approximately 1.5 miles east of the new passenger station which occupies the site of the former station. In addition to the four main tracks, a switching

lead and running track was constructed from a point just west of the former Grand Trunk Western crossing to Miami street, approximately two miles, and three station tracks were provided to serve the passenger platforms and the baggage, mail and express facilities.

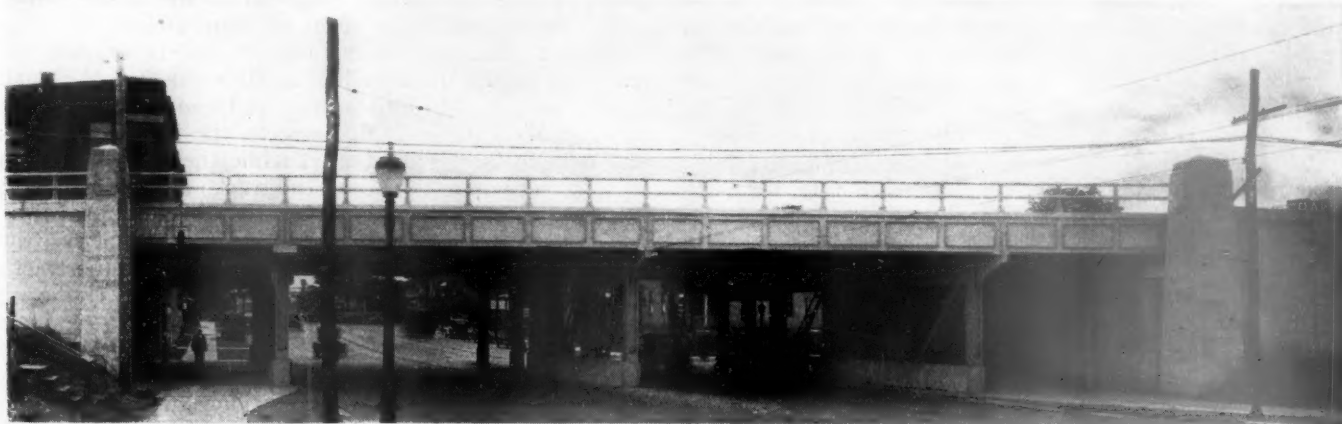
Prior to the track elevation, the New York Central freighthouse and team tracks were located immediately north of the main tracks and west of Scott street. This location not only interfered with the development of the passenger facilities, but, after the extension of the four-track system it would have been necessary to switch all cars to and from the freighthouse and team tracks across the main line passenger tracks almost at the throat of the station layout. Furthermore, the existing facilities had been outgrown, so that considerable expansion of these facilities was desirable, but was impracticable at this location. Accordingly, a new site was selected on Prairie avenue, some distance south of the original location, where adequate facilities have been constructed with ample room for future expansion.

#### Programming the Work

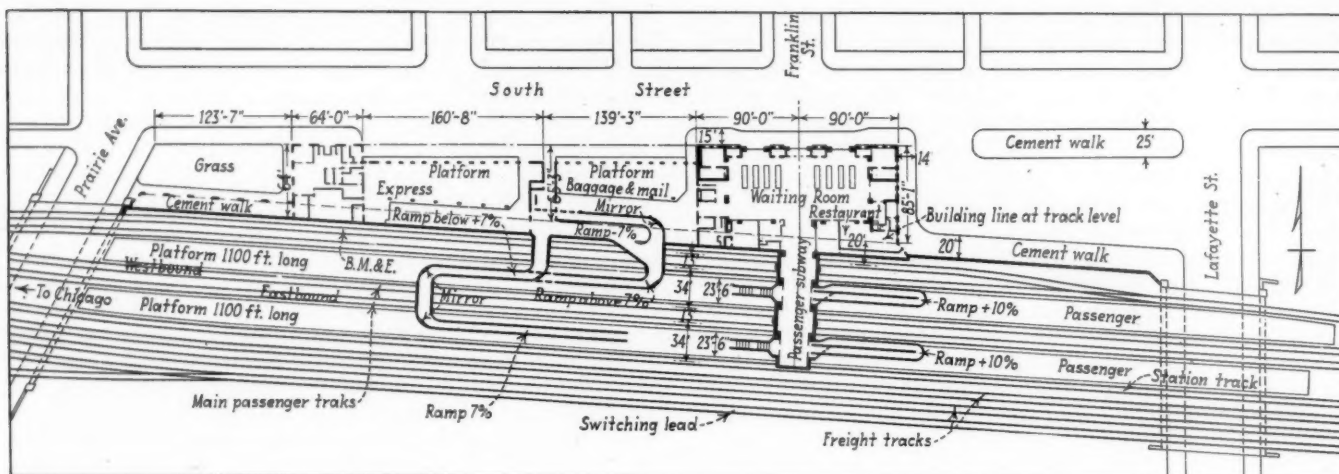
Between High street and the former Grand Trunk Western crossing the entire right of way is occupied by the new layout, so that within these limits the work was carried out under somewhat cramped conditions. Both the freight and passenger traffic passing over this line is heavy, with many important high-speed trains. It became necessary, therefore, to plan the work very carefully in order to minimize the interference with train movements and at the same time allow for as rapid progress as practicable on the construction of the various parts of the project. The removal of the freighthouse and its attendant switching greatly simplified the arrangement of temporary tracks and facilitated the placing of the filling material.

As soon as the freighthouse connections were removed, two temporary main tracks were constructed adjacent to the south right of way line from the G.T.W. crossing to the eastern limits of the work. This provided room for the construction of the north retaining wall, the abutments and piers for the bridges which carry the northerly two tracks, the subway and the ramps to reach the passenger platforms. As soon as the retaining wall and bridge masonry were completed, the grading and the erection of the bridge steel was started.

Owing to the heavy vehicular and foot traffic using the streets involved in the grade separation, it was planned to erect the steel bridges without recourse to falsework, in order to minimize the interference with this traffic. This was done at all of the streets except Michigan and Miami streets, where late delivery of the bridge steel made it necessary to employ falsework in order to avoid



Michigan Street Bridge, Looking South



Station Layout, Showing Ramps and Floor Plan of Station Building

delaying the construction program. By utilizing this method it did not become necessary to close any one of the streets for more than a few hours, besides which considerable saving was made in the cost of the work. As soon as the riveting was completed, the reinforced concrete floor slabs were placed so as to be ready for use as soon as the grading was completed. The erection equipment consisted of two locomotive cranes, one bridge derrick and one caterpillar tractor, the erection being carried out from the original track level.

#### Method of Grading

Likewise, the plan, as outlined at the beginning of the construction program, provided that the grading should be done without the use of a temporary filling trestle to avoid subsequent settlement of the tracks as the timber decayed. The contractor provided equipment, therefore, which enabled him to cast up the embankment for the first two tracks with material which was unloaded at the original track level from the side dump cars in which the filling material was delivered to the site of the work. This was done by means of three dragline graders and one caterpillar tractor, the latter being used for leveling off and compacting the material placed by the dragline equipment. The fill for the first two permanent tracks was completed in this manner and the tracks were laid. Before they were placed in service, however, the embankment for the third track was completed by dumping from the most southerly of these two tracks.

As soon as the first two permanent tracks were placed in service the temporary tracks were removed and the construction of the south retaining wall and the remainder of the bridge masonry was begun. The third track was laid, and as rapidly as the bridges were erected the placing of the remainder of the fill was carried on progressively from the permanent track level. The tracks at the west end of the work were raised under traffic, the raise at the G.T.W. crossing being six feet.

The material for making the fill was obtained from a pit at Ginger Hill on the Illinois division about nine miles from the site of the work. The contractor used a 5-cu. yd. dragline excavator for loading the 18-yd. cars in which the material was transported. The average rate of delivery was 96 cars a day, so that approximately 255 working days were required to place the 440,000 cu. yd. of material which were used in making the fill.

When the temporary tracks were placed in service, temporary passenger and baggage facilities were constructed to serve them, and the existing station and platforms were razed. When traffic was turned onto the first two permanent tracks, the old freight house was

utilized as a passenger station until the new union station was completed.

The retaining walls, exclusive of the bridge abutments, aggregated 8,200 lin. ft., and together with the bridge masonry required the placing of 45,000 cu. yd. of concrete. They range in height from about 6 ft. to more than 20 ft. above the footings. All walls and abutments are designed as gravity sections and, in general, are not supported on piles, the footings being spread to provide a safe unit-bearing load.

#### Street Bridges Designed for Heavy Loading

As has been mentioned, except at Main and High streets, independent bridges are provided for each track, so that the structures carrying any track can be removed or repaired without interfering with the use of the adjacent tracks. Each structure consists of half-through plate-girders, with sidewalk and roadway spans, and the tracks are carried on reinforced concrete floor slabs which are supported on I-beam floors. The concrete extends up to and over the top flange of the girders to protect them completely from brine drippings or other corrosive agents. Still further protection is afforded by the application of membrane waterproofing to the floor slab and the concrete which encases the inside face of the girders.

Because of the divergent tracks at the junction with the Grand Trunk Western at High street and the closing in of the station tracks at Main street, it was not practicable to use the through-girder construction at these streets, for which reason the tracks are carried on Bethlehem beams encased in concrete, which rest on transverse girders which, in turn, are supported on steel columns placed on the curb line at High street and at the center of the roadway and the curbs at Main street.

Prior to the track elevation, 14 streets crossed the tracks at grade, the crossing of Bronson and Michigan streets being at the intersection of these streets. Similarly, at Marietta and Ohio streets, the intersection was just outside the right of way, while there was a jog in Rush street where it crossed the tracks approximately at the crossing with Sample street. With the approval of the city, Rush and Ohio streets were closed across the tracks, but Ohio street was diverted south of the tracks so that a single subway serves to carry the traffic on Marietta and Ohio streets under the railway. A single bridge spans the intersection of Bronson and Michigan streets without disturbing the alinement of either. As a result of these changes, only 11 bridges are necessary to provide for the street traffic which formerly required 14 grade crossings.

Some of the streets involved in the grade crossing elimination are too narrow to serve efficiently the traffic they now carry. For this reason, the city plans to widen them as opportunity affords, and, in order that the subways at these streets might conform to this plan, the railway agreed to construct them to the proposed width and widen the streets for some distance on either side, the city paying for all work outside of the right of way lines. Accordingly, Fellows street was widened from 40 ft. to 60 ft.; Sample street from 40 ft. to 80 ft.; and Miami street from 50 ft. to 60 ft.; while the diversion of Ohio street was made 66 ft. wide, although the remainder of the street has a width of only 50 ft.

### The Union Station

While the work on the track elevation was progressing, the construction of the passenger station and allied facilities was also under way, the walls for the passenger subway and ramps having been built at the time the north retaining wall was constructed. The station fronts on South street at the corner of La Fayette street and is located one block west of Main street, one of the principal north and south streets of the city. The passenger facilities include the station proper, with separate space masked from the main part of the building, for the handling of baggage and mail, and express.

The main part of the building, which is 180 ft. by 85 ft. in plan, is two stories high, the waiting room extending the full height of the building. Surrounding three sides of this room at the first floor or street level are the usual facilities for purchasing tickets and checking baggage, and the rest rooms and toilets. The concessions include a news stand, a restaurant, a barber shop and a taxicab stand. On the second floor the space surrounding the waiting room is given over to office purposes.

The main entrance to the waiting room is from South street, but passengers arriving or leaving in taxicabs use the entrance at the east end of the building. A wide passage leads from the main entrance to the subway, from which the platforms at the track level are reached by means of ramps and stairways. Separate ticket offices are maintained by the two roads, and these are located on the track side of the waiting room to the right of the passenger subway. At the west end of the waiting room, immediately to the right of the ticket offices, is the baggage counter for checking baggage and parcels and the delivery of hand baggage.

The exterior of the building, which is faced with a light gray brick, is severely plain but very attractive, the flat surfaces being broken by wide pilasters and panels.

The arched roof which spans the waiting room, in combination with the vertical lines of the wall surfaces, gives an effect of height and great size and adds materially to the pleasing appearance which the building presents. On the South street front and the east end there is a 15-ft. concrete walk protected by long, deep canopies. Between the east end of the building and La Fayette street a large paved area provides parking space for automobiles and taxicabs.

### Features of the Waiting Room

The entire area at street level, except the ticket offices where wood floors are installed, is laid with terrazzo floors in alternate light and dark squares with three black bands for the border. The walls are finished in marble, the dado course being a dark-toned Botticino marble above which unpolished Tennessee marble extends to the ceiling. The Tennessee marble is omitted in the passenger tunnel, so that here the Botticino wall finish extends to the ceiling. The ceilings in both the waiting room and tunnel are of the barrel-vault type, the arches being constructed of light buff Gustavino tile. The groins at the intersecting arches which span the window openings are edged with darker tile, and small inserts and panels of darker tile in patterns have been introduced to break the monotony of the large vaulted surface. At lintel height, legible signs with recessed lettering indicate the location of the various facilities and concessions.

The large window areas provide ample daylighting, but without glare. The night lighting is of the indirect type and is accomplished by means of floodlighting units concealed in the parapet of the balconies on either side of the room. Fourteen units are employed in each of the center panels and 18 in the end panels to give a soft well diffused light. Half-hidden lights, not of the floodlight type diffuse a soft radiance through the passenger tunnel. Direct lighting is employed in the ticket offices and other rooms exterior to the waiting room.

Twelve radio clocks, which are controlled by a master clock that is regulated hourly by radio, are distributed throughout the public rooms and the various facilities, thus making it possible for both patrons and employees to ascertain the time from almost any position in the entire station. One of these clocks can be seen in the view of the waiting room.

The public rooms are heated by the indirect system of heating from a self contained heating plant in the basement. The Sturtevant system of heating and ventilation is used, there being no direct heating units in the building, except in the office on the second floor.

Waiting Room,  
Looking Toward  
Baggage Room



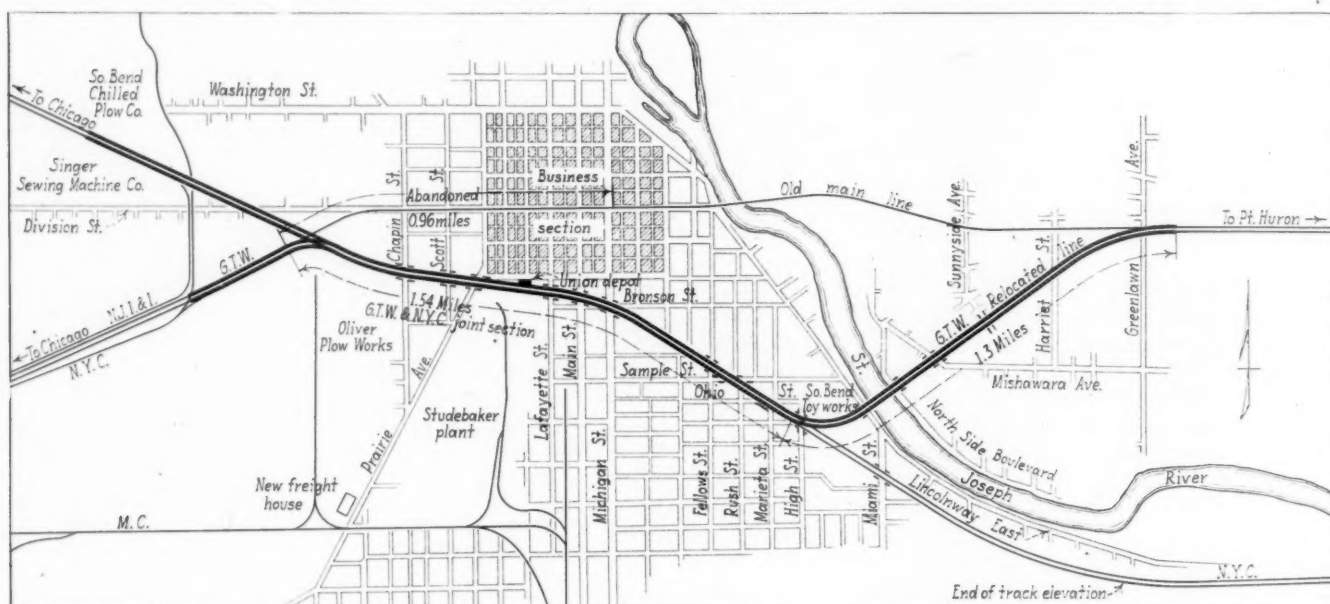
Separate facilities at street level have been provided for handling baggage and mail, and express, the quarters for these operations being in that part of the station building located immediately west of the main part of the structure. The baggage and mail room is 139 ft. by 65 ft., while the express room occupies an area 160 ft. by 65 ft., with additional office space 64 ft. by 64 ft. The main feature of both facilities is the high receiving and delivery platforms which are at wagonbed level. The floor upon which the trucks and trailers run, upon which shipments are taken to the platform at track level, are at street level. The station platforms are reached by an intricate system of ramps, one of which has two stages, as shown in the drawing.

Two station platforms, each 1,100 ft. long have been provided, the main passenger tracks being between them, with supplementary station tracks on either side. The third station track which was mentioned earlier, lies adjacent to the platform along the building and is used exclusively for unloading and loading baggage, mail and express cars which are received at or dispatched from South Bend.

A single interlocking plant controls all of the switches

to begin its diversion approximately 1.5 miles east of Michigan avenue. The relocated line turns sharply to the southwest on a long easy curve as it leaves the old line and crosses the St. Joseph river nearly at right angles and then curves again to the west to join the New York Central at High street. This double-track diversion is carried on a high embankment for 1.3 miles, crossing Harriet street, Sunnyside street, Mishawaka avenue and the two streets which parallel the St. Joseph river on either bank of this stream. East of the river the fill was made by means of trucks with basement and other excavation from building projects in the city. Since the line passes through a recently-developed high-class residential and park district the slopes have been carefully dressed and sodded.

The height of the embankment facilitated the separation of grades at all of the five streets which are crossed. The principal structures on the new line are at Mishawaka avenue and the St. Joseph river. The tracks are carried over Harriet and Sunnyside streets on I-beam spans encased in concrete, which are supported on concrete abutments and reinforced concrete piers. The pleasing design of these structures is accentuated by the



Grand Trunk Diversion and Trackage Rights Over New York Central, South Bend, Ind.

from the end of the four-track system on the east to the crossing with the Illinois division on the west, a distance of 3.68 miles. The interlocking machine, which is of the all-electric type furnished by the General Railway Signal Company, has 259 working levers and is housed in a three-story brick tower, 17 ft. by 70 ft. which conforms in appearance to the station to which it is adjacent. All signals are of the color-light type, with approach lighting. They are mounted on ground masts, bracket masts or signal bridges as required to bring them to the right of the tracks they govern. Track 5, the switching track, is signalled in both directions, all other tracks being signalled for the normal direction only. A complete description of this plant and its operation appeared in the July issue of *Railway Signaling*.

#### Grand Trunk Western Diversion

Immediately east of South Bend, the Grand Trunk Western and the New York Central are about a mile apart and from this point the lines formerly converged to the point of crossing, about one mile west of Michigan avenue. To obtain a connection with the New York Central, it was necessary for the Grand Trunk Western

paneled parapets which mask the tracks. Mishawaka avenue is crossed by means of a skew barrel arch having a clear span of 70 ft., the springing line of which is about 6 ft. above the sidewalk.

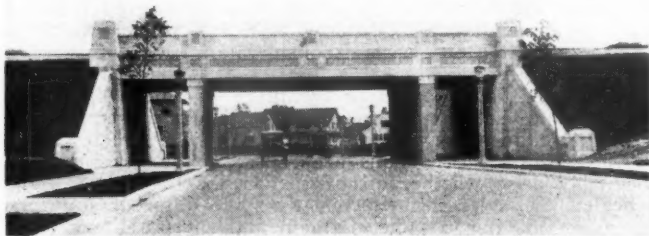
The arch has a rise of 15 ft. 9 in., giving a clearance of 20 ft. at the center of the street and 13 ft. at the curb. The cellular-type abutments are supported on creosoted piles to decrease the dead load and are filled with granulated slag to the elevation of the subgrade. Asphalt membrane waterproofing was applied to the barrel of the arch and this is protected with a layer of asphalt mastic blocks, over which a 6-in. layer of crushed stone was placed, with a system of cast-iron drain pipes embedded in the stone. The large surface of the spandrel walls and parapets is relieved by recessed panels. The entire exposed surface was waterproofed with an iron waterproofing applied with a cement gun, after which a cement finish was applied in the same manner. The construction of this arch required the placing of 2,000 cu. yd. of concrete, which was mixed at the site of the work. The concrete for the abutments was spouted from a bucket in the hoisting tower which was high enough to reach all parts of the work. The concrete in the arch and spandrel

walls was placed by means of bottom-dump concrete cars which operated on a narrow-gage track and which were filled from the hoisting bucket. Street-car traffic was maintained at all times during construction, but vehicular traffic was detoured during the depositing and curing of the concrete in the arch ring.

#### St. Joseph River Bridge

The bridge over the St. Joseph river consists of four 107-ft. deck plate-girder spans over the channel and two 90-ft. half-through spans, one over the North Side boulevard along the east bank of the stream and the other over the Lincoln highway on the west bank. The outer girders of the boulevard spans are masked by concrete fascia and the piers and abutments which support them are extended upward as pylons to add to the decorative effect. On the channel spans the tracks are carried on reinforced concrete floors which rest on the top chords of the girders and are cantilevered out 4 ft. 9 in. to form a walk. The shorter spans are designed with I-beam floors which are encased in concrete which extends to the top of the girders and is also cantilevered out to form a walk. The concrete is also carried down on the outside faces of the outside girders of these spans to form the fasciae, the reinforcement of this concrete being wire mesh supported by longitudinal bars which are carried through holes in the legs of the stiffening angles.

The east pier and the cellular concrete approach which



Grand Trunk Bridge Over Sunny Side Avenue

acts as an abutment are supported on concrete piles. The west abutment, which is similar in design to the one at the east end, rests on a stratum of gravel as do the channel piers which reach a depth of 16 ft. below low water. The foundations are protected by steel sheet piling which were used in the coffer-dams. They were anchored to the footings and left in place for this purpose.

In preparing for the construction of the piers, a wide low-level pile trestle with a wood plank floor was driven on the down-stream side of the structure. The coffer-dams were driven with a steam hammer working from a portable stiff-leg derrick from the deck of the trestle. After the driving was completed, the derrick was equipped with a clam-shell bucket for excavating the foundations. Later the same derrick handled the concrete from the mixer to the forms. The excavation was cast outside the coffer-dams and used for backfill.

When the footings were completed, the trestle was raised about 10 ft. on frame bents to facilitate the handling of the forms and concrete for the neat work. It was found convenient to utilize the aggregate storage and proportioning equipment which were being used for the arch at Mishawaka avenue, as it was only a short distance from the river. The aggregates were proportioned at this point and handled to the mixer in trucks. A mobile mixing plant was employed, which could be moved readily to the most convenient point on the trestle for work at any of the piers, the concrete being handled from the mixer to the forms by the portable derrick.



Construction Trestle, Bridge Over St. Joseph River

A total of 12,000 cu. yd. of concrete was placed in the substructure in this manner. The water-cement ratio was used for the concrete in this bridge as well as in the remaining structures on this line; the concrete for the arch ring at Mishawaka avenue was Class B concrete which has a required strength of 3,000 lb. per sq. in.

#### Erection Methods

Erection of the bridge over the St. Joseph river began at the west end, the girders being brought in over the connection with the New York Central at High street. The girders for the westbound track were placed first on each span, after which the girders for the eastbound track were erected, thus completing the double-track structure before proceeding to the next span. The girders for the span over the Lincoln highway were placed directly by a bridge derrick having a 60-ft. boom, thus avoiding the necessity for the use of falsework which would have obstructed the heavy traffic on this street. As a precaution, however, traffic was halted while each of these girders were being lowered onto its bearings.

The longer river spans were erected by an ingenious method of launching to a position where they could be lowered into place, thus avoiding the construction of expensive falsework. As each girder was to be erected, it was unloaded from flat cars at the west end of the bridge and placed on two 40-ton car trucks, then pushed slowly forward by a locomotive crane until its end rested on a timber tower equipped with dollies and vertical guide rollers, which was located about one-third of the way across the opening. The forward truck was then removed and a line from a hoisting engine was attached to the girder to pull it forward. This line passed through pulleys in an A-frame located on the pier next in advance. The launching continued until the girder rested on a second tower where a set of lifting blocks and line from the A-frame were attached. Thus, as the forward end reached the pier it was held suspended in the A-frame

(Continued on page 1234)



Erection of a River Span, St. Joseph River Bridge

# I. C. C. Annual Report

## *Recommendation for repeal of recapture clauses suggests possible change in rate-making rule*

WASHINGTON, D. C.

**R**EPEAL of the recapture clauses of Section 15a, of the interstate commerce act and the provision for a general railroad contingent fund is recommended by the Interstate Commerce Commission in its annual report to Congress made public on December 4. This being the open season for proposed changes in the law the commission also recommends that consideration be given by Congress to possible legislation providing for regulation of holding companies and that the rates and practices of forwarding companies be brought under regulation. It also expresses the opinion that its inquiry into the subject of co-ordination of motor transport with rail and water transportation should not operate to postpone or delay the consideration of the pending legislation for the regulation of the motor bus.

No suggestions are made as to consolidation legislation, which President Hoover urged in his only recommendation as to railroads in his message to Congress. The commission refers to its promulgation of the consolidation plan last December but remarks that "nothing has been undertaken before us by any of the carriers under Section 5, (6) looking to the carrying out of the plan" and that whatever has been accomplished has been as heretofore under paragraph (2).

The commission recognizes that repeal of the recapture provisions, its latest contribution to the long list of suggestions for far-reaching changes in the 1920 legislation, would undoubtedly raise the further question of the repeal or at least modification of the rate-making rule of Section 15a, which has already been advocated by the National Industrial Traffic League and the National Association of Railroad and Utilities Commissioners. While it offers no new suggestions of its own it says that Congress must also consider this far-reaching question, and reference is made to its previous recommendations for changes in the method of ascertaining the aggregate rate base and fair return.

While logical, the recapture provisions are open to serious practical objections, the commission says in its report, pointing out that it is difficult to make the fund really useful after it has been recaptured and referring to the difficulties and dangers attendant upon the collection of the fund, which now amounts to \$12,697,958 after the law has been in effect for over ten years. In addition to the objections which it had previously pointed out in reports to the Senate committee on the Howell bill, the commission also indicates a fear that the efforts of the railways to escape or minimize recapture may result in valuations higher than might otherwise be accepted.

After stating that the problem of putting the recapture fund to good use is "not an easy one to solve" the commission gives its reasons for advocating a repeal:

More important than this objection are the difficulties and dangers attendant upon the collection of the fund. As we indicated in our special report to the Senate committee, the possibilities of litigation are almost without limit. The valuations incident to recapture will alone provide a sufficiently fertile field, but further wide opportunities for litigation will be furnished by accounting regulations and administrative

attempts to disallow, in computing excess income, extravagant or wasteful expenditures. Upon our part the determination of all these highly controversial questions requires elaborate and expensive research into accounts and records and the taking of evidence and the hearing of argument in prolonged proceedings of a quasi-judicial character. After we have made our decisions, and in the probable event of appeal, similar ground must be covered again, to some considerable extent at least, in the courts.

Not only is such procedure very expensive to the Government and to the carriers, whose funds are derived from the public, but it also involves, we fear, other dangers to the public interest. To state the matter baldly and frankly, litigation over questions of valuation, accounting, and administration will arise in cases where the basic issue is whether or not, or to what extent, money shall be taken from carriers by the Government and possibly, in some instances, under financially embarrassing conditions. The unconscious influence of the surrounding circumstances is not unlikely to be such that the result will be to establish, in the course of this litigation, certain principles relative to valuation and the like which will have an unfavorable reaction on many broader phases of public regulation.

We are inclined to the opinion that these practical objections outweigh the theoretical advantages of recapture, and that the wiser course to pursue is to repeal the recapture provisions in their entirety, rather than attempt to improve them by amendment. Certainly this is a matter which is deserving of the most careful consideration by the Congress.

One difficulty with repeal is that the question will not stop there. From the beginning recapture has been linked in thought and theory with the other provisions of section 15a. This interconnection was emphasized by the Supreme Court. If the recapture provisions are repealed, the question will inevitably arise whether all of section 15a ought not to be repealed, or at least superseded by some different statutory provision having a like fundamental purpose. Various suggestions along these lines have already emanated from responsible sources. This far-reaching question the Congress must also consider.

Text of the commission's recommendations follows:

### **Recommendations**

For the reasons stated in this report and in former reports we recommend—

1. That section 1 of the interstate commerce act be amended to provide for the punishment of any person offering or giving to an employee of a carrier subject to the act any money or thing of value with intent to influence his action or decision with respect to car service, and to provide also for the punishment of the guilty employee.

2. That, subject to appropriate exceptions, the use of steel or steel underframe cars in passenger-train service be required, and the use in passenger trains of wooden cars between or in front of steel or steel underframe cars be prohibited.

3. That the so-called recapture clauses of section 15a of the interstate commerce act and the provision in that section for a general railroad contingent fund be repealed. As indicated in our previous discussion, the consideration of such a change in the law will probably involve the consideration of other changes in section 15a or its possible elimination. In this connection reference is made to our report dated May 17, 1930, to the chairman of the Committee on Interstate Commerce on S. 4005, Seventy-first Congress, second session. In that report we recommended changes in the method of ascertaining the aggregate rate base or bases and fair return to be used in administering the provisions of section 15a with respect to the regulation of railroads rates, fares, and charges. We also favored the repeal of section 5 (6) (b) and of section 19a (f) of the interstate commerce act.

4. That section 19 of the merchant marine act, 1920, be amended so that its provisions will clearly not be applicable to the Interstate Commerce Commission; that section 27 of

this act be reconsidered by the Congress in the light of our forty-first annual report; and that section 28 of this act be reconsidered by the Congress in the light of circumstances set forth in the chapter on the effect of this statute appearing at pages 13 and 14 of our thirty-fifth annual report to the Congress.

5. That section 17 of the interstate commerce act be amended so that the commission may be authorized to delegate to individual commissioners and employees the power to perform specified duties and to consider and determine specified matters, subject to the limitations and conditions suggested in our report dated April 25, 1930, to the chairman of the Committee on Interstate and Foreign Commerce on H. R. 11363, Seventy-first Congress, second session.

6. That the present exemption provisions of paragraph (22) of section 1, paragraph (1) of section 15a, and paragraph (1) of section 20a, applicable to electric railways, be amended by substituting provisions exempting all electric railways except such as interchange standard freight equipment with steam railways and participate in through interstate freight rates with such carriers, provision to be made for exemption of particular electric railways falling within the excepted class, if upon application they are able to show to the satisfaction of the commission, after notice and opportunity to be heard, that they are not affected with an important national interest so far as the provisions in question are concerned.

7. That sections 10 (1) and 20 (7) of the act be amended so as to make them apply specifically to independent contractors and their officers and agents.

8. That consideration be given by the Congress, in the light of such facts as may be disclosed by the investigation of the Committee on Interstate and Foreign Commerce which is now in progress, to possible legislation providing for public regulation in certain respects of so-called holding companies which may or do control carriers by railroad subject to our jurisdiction.

9. That paragraph (4) of section 15 be amended so as to restrict the "long-haul right" to originating carriers.

10. That the act be amended so as to require that the rates and practices of forwarding companies engaged in interstate commerce shall be reasonable and nonprejudicial; to require such companies to file with us and strictly observe their published schedules of rates and charges; and to provide penalties for departures therefrom or for the granting of concessions or rebates by means of any device whatsoever to any shipper, and make the administrative provisions of the act applicable for the enforcement of the duties so imposed.

11. That paragraphs (3) (a), (b), and (c) of section 16 of the act be amended so as to provide that all actions at law by carriers for recovery of their charges shall be begun within six months (instead of within three years, as now provided) from the time the cause of action accrues; that all actions at law for the recovery of overcharges shall be begun or complaint filed with us within six months (instead of three years) from the time the cause of action accrues, except that if claim for the overcharges has been presented in writing to the carrier within the 6-month period of limitation said period shall be extended to include 90 days from the time notice in writing is given by the carrier to the claimant of disallowance of the claim or any part or parts thereof specified in the notice of damages; and that all complaints against carriers for the recovery of damages not based on overcharges shall be filed with us within 90 days from the time the cause of action accrues subject to subdivision (d). That paragraph (3) (d) of section 16 be amended so as to provide that if on or before the expiration of the 90-day period of limitation in subdivision (b) or of the 6-month period of limitation in subdivision (c) a carrier subject to the act begins action under subdivision (a) for recovery of charges in respect of the same transportation service or, without beginning action, collects charges in respect of that service, said period of limitation shall be extended to include 90 days from the time such action is begun or such charges are collected by the carrier.

We again recommend consideration of amendment to section 8 of the act, as to awards of damages, in the light of the discussion in our previous reports referred to herein.

### The Country Still Needs Its Railways

In discussing the financial condition of the roads the commission points to the darkened prospect of a continued expansion in freight business to offset the further loss in passenger business and says that even in 1929 "they did not reach the full return upon their property which we think would be reasonable," but it observes

that the ratio of their net income to their stock was never better than it was in 1929, when it reached 9.92. On this point the report says:

As appears from detailed statistics shown elsewhere in this report, the steam railways have experienced a heavy decline in gross and net earnings as the result of the economic depression which began in 1929. With a fall of 14.2 per cent in the operating revenues of Class I railways in the first eight months of this year from the revenues of the same period last year, and with a curtailment of only 9.9 per cent in expenses and taxes, the net railway operating income available for interest and dividends was less by \$273,000,000, or nearly 33 per cent, for the 1930 than for the 1929 period. If railway finances were suffering only from the fact that a recession in business is being experienced as in other industries of this country and of the world, it might be sufficient to point out that in judging of railway income one should in fairness consider the good and bad years together.

But a different and more threatening financial difficulty confronts the railways. This is the effect of the competition of other forms of transportation. With a plant developed to carry a great volume of passenger business, the railways find themselves confronted with a steady lessening in the volume of passenger travel by rail and consequently in gross revenues from that source. The passenger revenue of 1929 was over \$414,000,000 less than that of 1920. It is true that the freight revenue was \$498,000,000 greater in 1929 than in 1920, but the prospect of a continued expansion in freight business to offset the further loss in passenger business is darkened by the competition of water lines, pipe lines, and trucks, and by changes that may check the growth in demand for ton-milage, such as economy in the use of coal, changes in the location of industry, and the relatively slower growth of population.

However, the country still needs its railways and can support them. With the traffic of 1929 the railways were as a whole enjoying a comfortable degree of prosperity, even though they did not reach the full return upon their property which we think would be reasonable. Fortunately for their financial position, their capitalization in recent years has not kept pace with their investment, and the relation of their net income, after interest charges and all taxes, to their capital stock was never better in their history than it was in 1929. The following table shows the relation of net income to stock for the period 1910 to 1929:

CAPITAL STOCK ACTUALLY OUTSTANDING AND NET INCOME OF ALL STEAM RAILWAYS, EXCLUDING SWITCHING AND TERMINAL COMPANIES, 1910-1929

Year ended	Capital stock Millions	Net income after interest charges and all taxes Millions	Ratio of net income to stock Per cent
June 30:			
1910 .....	\$8,011	\$583	7.28
1911 .....	8,363	547	6.54
1912 .....	8,552	453	5.30
1913 .....	8,600	544	6.33
1914 .....	8,654	395	4.57
1915 .....	8,635	355	4.11
1916 .....	8,743	671	7.68
Dec. 31:			
1916 .....	8,755	735	8.40
1917 .....	9,004	658	7.31
1918 .....	8,847	442	5.00
1919 .....	8,883	497	5.59
1920 .....	8,843	482	5.45
1921 .....	8,890	351	3.94
1922 .....	8,962	434	4.85
1923 .....	9,093	632	6.95
1924 .....	9,300	623	6.70
1925 .....	9,413	771	8.19
1926 .....	9,365	883	9.43
1927 .....	9,539	742	7.78
1928 .....	9,722	855	8.79
1929 .....	9,847	977	9.92

The detailed reports of the activities of the commission's various bureaus shows the extent to which its forces have been engaged in recapture work. The services of all available field accountants of the Bureau of Accounts have been required by the examinations of the accounts of the roads for the purpose of arriving at correct net railway operating income and it is stated that the activities of the Bureau of Valuation have in a large measure been restricted during the year to valuation work in recapture cases, which has delayed to a certain extent the preparation of final valuation reports.

The report of the Bureau of Accounts says that final

reports in the matter of depreciation charges and the revision of the accounting classifications are now in course of preparation.

### Bureau of Finance

The Bureau of Finance reports that certificates were issued during the year covered by the report, ending October 31, authorizing the construction of 1,596 miles of new line in 54 cases, the abandonment of 1,807 miles in 72 cases, and the operation or acquisition and operation of 4,263 miles in 64 cases. Six applications for authority for the construction of 765 miles were dismissed. In the last report it was shown that of the railway mileage for which the commission has issued certificates authorizing new construction since the effective date of this provision of the act in 1920 it had information that approximately 4,429.19 miles had been construction. Since that report it has been advised by carriers of the completion of approximately 1,044.55 additional miles.

Under the provisions of Section 5 (2) 33 applications for authority to acquire control were filed during the year, 47 authorizations were issued, 1 was denied and 7 were dismissed.

The commission received 174 applications and 49 supplemental applications under section 20a of the act and has authorized the issue of securities and the assumption of obligations and liabilities to the amount of \$1,723,543,132. This includes \$39,169,353 of preferred stock, \$556,646,965 of common stock in addition to 4,346 shares without nominal or par value, \$332,000 income-mortgage bonds, \$727,073,000 of mortgage bonds, \$170,259,000 of debentures, \$3,719,000 of drafts for acquisition of equipment, \$57,956,500 of secured notes, \$42,537,334 of unsecured notes, \$56,145,856 of equipment obligations, \$1,950,000 of receivers' certificates, and \$1,312,980 of receivers' notes. All the equipment obligations, except those issued directly to the builders, were sold at competitive biddings, the report says. The table given in the annual report for 1928 shows certain data with respect to the sale of equipment obligations and bonds in amounts of \$100,000 and over to bankers, and resales by them to the public, in cases where complete sales information was available. The table is here reproduced with additional data for the last six months of 1928, the calendar year 1929, and the first six months of 1930 included.

For the year 1929, the report shows, 27 carriers, out of 784 reporting, reported excess income to the amount of \$5,378,101, and 13 carriers paid to the commission

\$2,042,484 as one-half of their excess preliminarily computed. For the ten years since the law was passed carriers have reported excess income to the amount of \$23,087,392.

The formal complaints filed with the commission during the year numbered 1,412, of which 1,153 were original complaints and 259 subnumbers, a decrease of 108 as compared with the previous period. Valuation and finance proceedings are not handled on the formal docket. The commission decided 1,244 cases and 303 have been dismissed by stipulation or on complainant's request, making a total of 1,547 cases disposed of, as compared with 1,777 during the previous period.

Approximately 142 formal and investigation and suspension cases have been reopened for further hearing and reconsideration.

It conducted 1,491 hearings and took approximately 217,621 pages of testimony, as compared with 1,355 hearings and 219,519 pages of testimony during the preceding period.

The following statement shows certain facts with respect to the condition of this docket as of October 31 of the years indicated:

	1927	1928	1929	1930
Formal complaints filed .....	1,318	1,404	1,192	1,153
Subnumbers .....	243	289	328	259
Investigation and suspension cases instituted .....	213	189	176	153
Cases under submission at end of period .....				
Regular docket .....	633	483	512	687
Shortened procedure .....	291	230	159	88
Cases disposed of including subnumbers and reopened cases .....	1,657	2,166	2,120	1,825
Number of pending dockets .....	2,852	2,740	2,477	2,352

Approximately 31 per cent of the total number of formal complaints are now handled by the shortened-procedure method as compared with 35, 40, and 37 per cent during three preceding years. In cases so handled and decided during this year, the average elapsed time to reach a decision was 399 days from the receipt of complaint, and 218 days from receipt of the final memorandum. The corresponding periods during the three preceding years were 479 and 272, 480 and 300, and 452 and 285 days, respectively.

The number of informal complaints received was 6,651, a decrease of 688. The carriers filed 11,568 special docket applications for authority to refund amounts collected under the published tariffs admitted by them to have been unreasonable, a decrease of 275. Orders authorizing refund were entered in 10,658 cases, an increase of 620, and reparation thereon was awarded in the sum of \$1,804,780.56. In addition, 1,196 cases were dismissed or disposed of without orders. The bureau also handled approximately 36,700 letters, many of which had the characteristics of informal complaints, although not so classified.

Reports have been made and published during the year in 7 investigations instituted by the commission on its own motion and 28 now pending are listed in the report as some of the more important.

Some further excerpts from the report follow:

### Car and Locomotive Inspection

The percentage of locomotives inspected by our inspectors found to be defective, the number of accidents, the number of persons killed, and the number of persons injured shown in the last annual report was the lowest heretofore recorded. However, a still further improvement was made in the condition of locomotives in the year just closed, and the benefits derived therefrom are clearly reflected in the reduced number of accidents and casualties.

During the year 16 per cent of the steam locomotives inspected were found with defects or errors in inspection that should have been corrected before being put into use as compared with 21 per cent for the previous year. A summary of all accidents and casualties to persons occurring in

### Sales of Equipment Obligations

Year	Principal amount sold	Weighted average		
		Spread in price to bankers and to public per \$100	Cost per cent to carriers	Yield per cent to public
1920 (7 months) .....	\$2,400,000	\$1.91	7.13	6.81
1921 .....	19,621,000	2.295	6.81	6.465
1922 .....	86,390,000	2.33	5.74	5.31
1923 .....	255,168,000	2.33	5.72	5.34
1924 .....	198,333,000	1.86	5.26	4.945
1925 .....	100,216,000	1.80	5.14	4.85
1926 .....	92,313,000	1.47	4.95	4.71
1927 .....	60,097,000	0.66	4.59	4.49
1928 .....	33,525,000	0.64	4.42	4.31
1929 .....	105,430,000	0.89	5.28	5.125
1930 (6 months) .....	88,962,000	0.72	4.72	4.61

### Sales of Bonds

Year	Principal amount sold	Spread in price to bankers and to public per \$100	Cost per cent to carriers	Yield per cent to public
1920 (7 months) .....	\$25,000,000	\$3.47	7.50	7.00
1921 .....	342,104,000	4.54	7.25	6.74
1922 .....	304,487,800	3.55	5.94	5.675
1923 .....	144,007,000	2.815	5.51	5.35
1924 .....	430,452,000	3.17	5.61	5.38
1925 .....	298,295,500	2.95	5.62	5.39
1926 .....	205,148,000	2.62	5.28	5.10
1927 .....	499,926,500	2.60	5.10	4.94
1928 .....	351,235,000	2.33	4.73	4.60
1929 .....	105,239,000	2.465	5.20	5.00
1930 (6 months) .....	516,481,000	2.48	4.97	4.82

connection therewith compared with the previous year shows a decrease of 17.1 per cent in the number of accidents, a decrease of 31.6 per cent in the number of persons killed and a decrease of 17.9 per cent in the number injured during the year.

Eleven suits for penalties, involving 241 counts for alleged violations of the locomotive inspection law and rules, were pending in the various district courts at the beginning of the year. Information of violations was lodged with the proper United States attorneys in three cases, involving 39 counts. Judgments in favor of the government were obtained in 11 cases, involving 236 counts; 107 counts were dismissed by stipulation or agreement and penalties imposed on 129 counts in the sum of \$12,900. Three cases, involving 44 counts, were pending in the district courts at the end of the year.

No formal appeal by any carrier was taken from the decisions of any inspector during the year.

Approximately 1,400,000 cars and locomotives were inspected (during the year ended June 30); the number of safety appliance defects per 1,000 cars and locomotives inspected was 23.32. The corresponding figures for the preceding year were approximately 1,487,000 inspected and 28.71 defects per 1,000 inspected. The condition of safety-appliance equipment has been steadily improving for several years, and the records of inspection for the past year reflect the best conditions that have been found since this inspection work began.

### Signals and Train Control

Under our orders 8,387.5 miles of road and 15,193.7 miles of track have been equipped with automatic train-stop or train-control devices. In addition, 3,135.5 miles of road and 5,188.3 miles of track have been equipped voluntarily beyond the requirements of our orders, the installations now in service comprising 11,523 miles of road and 20,382 miles of track. A total of 9,201 locomotives are equipped with automatic train-control devices. As compared with last year, these figures represent an increase of 69.6 miles of road, 382 miles of track, and 297 locomotives.

During the year reports were issued covering inspection and test of automatic train-stop installations on the New York, New Haven & Hartford Railroad and the Long Island Railroad. With the issuance of these reports, all of the 80 installations required by our orders have been tentatively approved; in many of these reports exceptions and recommendations are noted which require further consideration. For the purpose of ascertaining what measures have been taken by the carriers to comply with exceptions, requirements, and recommendations set forth in these reports and the character and degree of maintenance given this equipment, reinspections have been made of 61 installations and final reports of approval have been issued covering 30 of them. Final reports have not been issued covering reinspection of 20 installations, and complete approval has not been given to 11 of the reinspected installations pending further action by the carrier with respect to correction of certain conditions to which attention has been directed in our reports of tentative approval.

Reports are submitted monthly by the carriers furnishing information with respect to performance of the several automatic train-control installations in service. These reports also give an indication of the character and degree of maintenance of train-control equipment by the several roads.

We investigated 113 train accidents, of which 69 were collisions, 43 were derailments, and 1 was of a miscellaneous character. The collisions resulted in the death of 94 persons and the injury of 647 persons; the derailments resulted in the death of 105 persons and the injury of 1,032 persons; and the miscellaneous accident resulted in the death of 1 person and the injury to 1 person, a total of 200 persons killed and 1,680 injured. A detailed report concerning each accident investigated is made public when completed, and summaries of these reports are published quarterly.

More detailed reports of the Bureau of Locomotive Inspection and the Bureau of Safety are published separately.

### Co-ordination of Rail and Motor Transportation

In the present state of the law there is no regulation exercised over the operation of motor busses and motor trucks engaged in interstate commerce when they are not used in terminal service in connection with rail transportation. In view of this situation and considering the rapidly increasing importance of motor transportation in 1926 we entered upon an investigation into the general question of the operation of motor busses and motor trucks by or in connection or com-

petition with common carriers subject to the interstate commerce act. After extended hearings we made a report (Motor Bus and Motor Truck Operation, 140 I. C. C. 685) to the Congress with certain recommendations as to legislation which we believed our investigation had shown was necessary in respect of the operation of motor vehicles in interstate commerce.

A bill, H. R. 10288, Seventy-first Congress, now pending as unfinished business of the Congress, proposes legislation to regulate the transportation of persons in interstate commerce by motor bus, as recommended by us. This bill incorporates some, but not all, of our recommendations. For example, this bill does not provide for the participation by rail or water carriers subject to the act in joint rates and through routes with motor vehicle lines.

Since 1926 there has been a greatly expanded use of motor vehicles by the rail and water carriers subject to our jurisdiction. Numerous situations have been called to our attention by formal complaints and otherwise concerning these operations. In order that we may be fully informed as to the present situation and the extent of motor vehicle operations in interstate commerce and their relation to rail and water transportation and the manner in which such operations are being conducted, with a view to determining the best means of co-ordinating the various transportation agencies in the interest of an efficient and adequate system of transportation, we have instituted an investigation into the matter of the coordination of motor transportation with rail and water transportation. This proceeding has been assigned for hearing at important cities in various parts of the country.

We deem it appropriate to say, however, that we know of no good reason why this new inquiry should operate in any wise to postpone or delay the consideration of the legislation for the regulation of the motor bus which is now pending in Congress. While it is not unlikely that such legislation, in the form now proposed, may prove inadequate to meet all the needs of the situation, and while the investigation which we have under way may develop facts pertinent in that connection, nevertheless such legislation will be a first step in regulation which we believe ought to be taken without delay. It will furnish a nucleus of experience upon which to build for the future.

### Class-Rate Readjustments

During the year we announced simultaneously our decisions in two major proceedings involving comprehensive adjustments of class rates within and between official and western trunk-line territories, Eastern Class-Rate Investigation, 164 I. C. C. 314, and Western Trunk-line Class Rates, 164 I. C. C. 1. The carriers affected by these decisions have large forces of men now engaged in preparing tariffs carrying out our findings. It is hoped that the new rates may be made effective early in 1931, but the exact date is in doubt. A number of petitions, seeking modifications of certain of our findings, have been filed by both carriers and shippers and they will be acted on without undue delay.

The two decisions above referred to, which involve class rates in the territory lying roughly north of the thirty-seventh parallel of latitude between the Atlantic Ocean and the Rocky Mountains, complete in a general way the readjustment of class rates which has been in progress for the greater part of a decade. Since this readjustment has had to be undertaken in proceedings largely separate from and unrelated to each other, certain problems of relative adjustment have arisen and remain to be disposed of. For example, complaints filed by the states of North Carolina and Kentucky, assailing rates between those states and official territory on the north of them, are pending and have been the subject of hearings during the current year. Neither has as yet been submitted for decision. We have also found it advisable to reopen the *Consolidated Southwestern Cases*, 123 I. C. C. 203, for further hearing as to the reasonableness of the rates previously prescribed in the light of our findings in *Western Trunk-Line Class Rates*, *supra*.

### Holding Companies

In our last annual report we called attention to the activities of so-called holding companies in acquiring control of railroads, and pointed out, after some considerable discussion of the subject, that through such activities "the subjection of the unification of carriers by railroad to the orderly processes of a carefully planned scheme of public regulation, which section 5 was designed to accomplish, it is very likely to be partially or even wholly defeated, subject to the possibility that the Clayton Antitrust Act may in some measure, after protracted litigation, enable control over the situation to

be maintained." We recommended a thorough investigation of this situation with a view to determining what legislation, if any, is necessary or desirable.

In response to this recommendation the House of Representatives very promptly passed its Resolution 114, under which the Committee on Interstate and Foreign Commerce at once began an extensive and searching investigation.

We have been kept advised as to the progress of that inquiry, and in connection with it have given the House committee the services of various members of our staff. The investigation promises to develop much pertinent information which has not hitherto been made available in any authoritative or adequate form. It may be anticipated that upon the basis of this information the House committee will be able at a comparatively early date to recommend such legislation as it may deem necessary for the proper protection of the public interest. In that event the importance of the subject warrants the expression of a hope that such legislative proposals, if any, may receive early consideration.

## Hold Motor Transport Hearing in Dallas

CONTINUING its investigation into the co-ordination of railway and highway service, Docket 23,400, the Interstate Commerce Commission heard the testimony of representatives of railways operating in Texas at a hearing in Dallas, Tex., on November 28 and 29. Commissioner Ezra Brainerd presided at the hearing, and was assisted by Examiners Leo J. Flynn and Albert E. Stephan. Particular interest was displayed in the present motor coach and truck operations of the railways and the manner in which these are carried on, and especially close attention was given to the relation of the Southern Pacific Lines in Texas to the Southland-Greyhound Lines operating in the state. The testimony of representatives of railways which are using motor transport to supplement their rail service indicated that these lines proposed to continue their highway operations. A strong plea was made that the commission recommend to Congress that railway lines be given authority to operate motor vehicles freely under the proposed federal regulatory legislation. The railways also asked for regulation of motor truck as well as motor coach service, pointing out that unregulated truck competition is seriously impairing railway revenues.

G. B. Herbert, assistant auditor of the Southern Pacific Lines in Texas and Louisiana and a director of Southland-Greyhound, Inc., testified that the Southern Pacific owns 35.21 per cent of the stock of Southland-Greyhound, Inc., which is a Delaware corporation, a holding company which owns the Southland-Greyhound Lines of Texas. The railway acquired stock in Southland-Greyhound, Inc., to the amount of \$520,000 and in addition holds notes of the motor coach operating company to the amount of \$120,000 for money advanced to liquidate indebtedness and for the installation of new lines. Mr. Herbert explained that the stock was acquired as a part of the program of the Southern Pacific to bring about greater co-ordination of railway and highway service and to make possible extensive use of motor coaches to supplement rail service. He said that the Southern Pacific considers the stock acquisition a sound venture and that the railway expects later to earn a profit on its investment as further economies are effected. Since the Southern Pacific acquired its stock interest, he said, the Southland-Greyhound has disposed of unprofitable lines and leased other lines to individuals.

Mr. Herbert testified that congestion on the highways should cause an increase in short-haul motor coach traffic. He predicted that a continued increase in high-

way congestion would result in less extensive use of private automobiles and more patronage of motor coaches. Co-ordination of railway and highway service is desirable, Mr. Herbert said, and this will be aided by joint regulation of both rail and highway carriers. Mr. Herbert said that he saw no reason why railways should not own and control motor coach lines, and suggested that this should be permitted under the proposed federal regulatory law.

In reply to a question from Commissioner Brainerd, Mr. Herbert said that the Southland-Greyhound motor coach lines in some instances parallel railway lines other than those of the Southern Pacific, but he stated that his company has not taken advantage of this situation in order to attract traffic from competing railways. One instance of this sort which was mentioned was the motor coach line operated by Southland-Greyhound between San Antonio, Tex., and Laredo, which parallels the International-Great Northern.

Under examination by attorneys of other railways, Mr. Herbert said also that the Southland-Greyhound Lines parallel the Texas & Pacific for a distance of some 600 miles between El Paso, Tex., and Dallas. In reply to a question as to whether or not the Southern Pacific, through the Southland-Greyhound Lines, is attempting to cut into the business of the Texas & Pacific and the International-Great Northern. Mr. Herbert said that the Southern Pacific does not control the policies of Southland-Greyhound. Examiner Flynn asked why not, to which Mr. Herbert replied that, as a large stockholder, the wishes of the Southern Pacific would doubtless be observed when this would be helpful by the motor coach company, but that the railway is only represented on the board of directors and on the executive committee and does not hold full control. It was pointed out that a Missouri Pacific Transportation Company motor coach line, operating between Falfurrias, Tex., and Edinburgh, parallels the Southern Pacific. It was stated that one of the purposes of the Southern Pacific in acquiring the stock of the Southland-Greyhound Lines was to make it possible to discontinue unprofitable railway service in favor of highway service. Mr. Herbert said that the Southern Pacific has been interested in motor transportation only for a short time and that the situation is still under study.

The store-door collection and delivery service provided between certain points on the Southern Pacific Lines in Texas by the Southern Pacific Transport Company was described by T. W. Waldrop, vice-president and general manager of the motor transport company. (This is a service similar to that operated by the Pacific Motor Transport Company in conjunction with the Southern Pacific in California and Oregon, which has been described in previous issues of the *Railway Age*. Mr. Waldrop said that applications are now pending before the Texas Railroad Commission for extension of the service to additional cities. He also said that the Southern Pacific expects to find it desirable to extend this service to interstate traffic. The elimination of unregulated truck operation by motor carriers who juggle their rates to meet cut-throat competition between themselves was urged by Mr. Waldrop. He said that the motor carriers are taking even carload business from the railways, and that the existing Texas law regulating truck lines is susceptible of so many conflicting interpretations that it is impracticable to enforce it.

J. B. Payne, vice-president in charge of traffic of the Texas & Pacific said that the pick-up and delivery service provided through the Texas & Pacific Motor transport Company has justified itself. This service, he said, is now furnished on all Texas & Pacific lines where there is truck competition. Mr. Payne said that the

truck rates are now approximately the same as railway rates, but that the railway would like to see the truck rates increased 20 per cent. The Texas & Pacific pick-up and delivery service has had no appreciable effect on the railway's earnings, Mr. Payne said, although the railway has obtained business through it which would otherwise have gone to competitive truck lines.

Mr. Payne proposed that regulatory measures to which the railways are now subject should be extended to the motor coach and truck lines; that certificates permitting motor vehicle operation should be issued only after a proper showing that the public convenience and necessity would be served by the proposed operation; that only responsible parties be given permits; that reasonable rates be required; that proper service be maintained; that railway lines be permitted to operate motor vehicles without discrimination; and that motor coaches and trucks should not be permitted to obstruct the highways.

Mr. Payne told the commissioner that the legal department of the Texas & Pacific had concluded that the Texas & Pacific Motor Transport Company, which operates the pick-up and delivery service, could legally engage in interstate commerce under existing laws. He said, however, that the Texas & Pacific still operates in intrastate service only.

That it is necessary for railways to provide pick-up and delivery service in order to meet motor truck competition, was emphasized by P. J. Neff, assistant to the president of the Missouri Pacific and vice-president and general manager of the Missouri Pacific Transportation Company, and by J. A. Brown, assistant vice-president in charge of traffic. They described the loss of railway traffic as a result of the competition of motor coach and truck lines. Mr. Neff said that the railways now own about a fifth of the motor coach lines in the United States, either wholly or partially, and about 10 per cent of the truck lines. Mr. Neff said that, through their control of motor transport lines, railways have been able to go into competitive territory beyond that of their own railway lines, and that this practice constitutes a direct challenge of the Interstate Commerce Commission's authority under the Interstate Commerce Act.

Harvey Allen, general freight agent of the Missouri-Kansas-Texas, testified that his railway is willing to meet the competition of regulated motor trucks but that unregulated trucks are offering a form of competition which the railways cannot meet. He said that the pick-up and delivery service inaugurated by the Katy through the Missouri, Kansas & Texas Transportation Company has enabled the railway to recover some l. c. l. traffic, but that trucks are beginning to make inroads into the carload business, particularly cotton.

D. W. Milam, auditor of the Electric Express Company, which operates over the rails of the Texas Electric Railway, described the operation of package cars daily out of Dallas under joint through rates with the Missouri Pacific Transportation Company. Motor coach and truck service and conditions in Kansas were described by Miss Helen E. Smith, supervisor of the motor carrier department of the Kansas Public Service Commission.

The hearing adjourned on November 29 to resume at New Orleans, La., on December 3.

## Rail Motor Car Halves Passenger-Train Costs

ON August 4, 1929, the Huntingdon & Broad Top Mountain Railroad & Coal Company placed in service a Brill 73-ft. gas-electric rail car, replacing the steam-operated passenger-train service between Huntingdon and Bedford, Pa. The car is equipped with two 300-hp. Hall-Scott gas engines, each directly connected to a G. E. generator of 185 kw. capacity, each driving two traction motors of 150 hp. capacity. The car has seats for 38 persons in a 26-ft. passenger compartment, 16 persons in a 10-ft. smoking compartment, and seats for 4 in the baggage compartment, which is 16 ft. 10 in. long.

At Huntingdon the line connects with the main line of the Pennsylvania. From this point it runs in a southwesterly direction through Huntingdon and Bedford counties, terminating at Bedford, a distance of 52 miles from Huntingdon, where it connects with the Pennsylvania line to Cumberland, Md. Southward from Huntingdon the maximum grades are 1.95 per cent, while northward from Bedford to Huntingdon they run as high as 2.08 per cent.

At the time the motor car was placed in operation the passenger train service on this line consisted of three trains each way daily, each making seventeen intermediate stops, arranged in three-turn around runs. While this service was maintained the car regularly operated 312 miles daily. On March 16, 1930, the schedule was reduced to two turn-around runs, since which time the car has been making 208 train-miles daily, except Sunday, and 104 train-miles on Sundays.

A normal train on these runs consists of motor car M-39, weighing 150,000 lb., and one all-steel railway mail and express trailer weighing 108,300 lb. Frequently the normal train is increased by the addition of one or more cars of preference freight which are handled by



Brill Motor Car which Handles the Passenger Service on the Huntingdon & Broad Top Mountain

the motor car on the passenger-train schedules to effect prompt movement over the road. The regular schedules call for an average of 28.3 miles an hour, including stops.

This movement averages approximately one car per day, as illustrated by the records of the movements during the months of August and September, 1930. In August seventeen cars of preference freight were handled from Bedford to Huntingdon and sixteen cars from Huntingdon to Bedford, while in September twenty-three cars were moved from Bedford to Huntingdon and ten cars from Huntingdon to Bedford, the total for each of the two months being thirty-three cars. As many as four cars of freight have been moved in a single train with a combined train weight, including the motor car and mail-express trailer, of 251 tons.

The motor car has established an excellent record for itself in the matter of reliability and economy in the cost of operation. During the first nine months of its operation it effected a saving of approximately 50 per cent as compared with the former cost of the steam-operated passenger service. This includes wages, fuel and other supplies, and enginehouse expense and maintenance. During the first year of its operation the car was in regular service for 346 days and in the shop for periodic inspection and repairs 19 days, an availability of 94.8 per cent.

The motor-car train service has met with a favorable reception on the part of the patrons of the road. Its riding qualities have proved to be excellent and the elimination of smoke and cinders from the steam locomotives has also been a factor in securing general public approval of the motor-car passenger service.

## Freight Car Loading

WASHINGTON, D. C.

**R**EVENUE freight car loading in the week ended November 22 amounted to 779,757 cars, a reduction of 169,959 cars as compared with the loading in the corresponding week of last year, which had reflected the earlier stage of the business depression, and a decrease of 249,480 cars as compared with 1928.

All districts and all classes of commodities showed reductions as compared with both years, the largest decreases being in coal and miscellaneous freight. The summary, as compiled by the Car Service Division of the American Railway Association, follows:

### Revenue Freight Car Loading

Week Ended Saturday, November 22, 1930

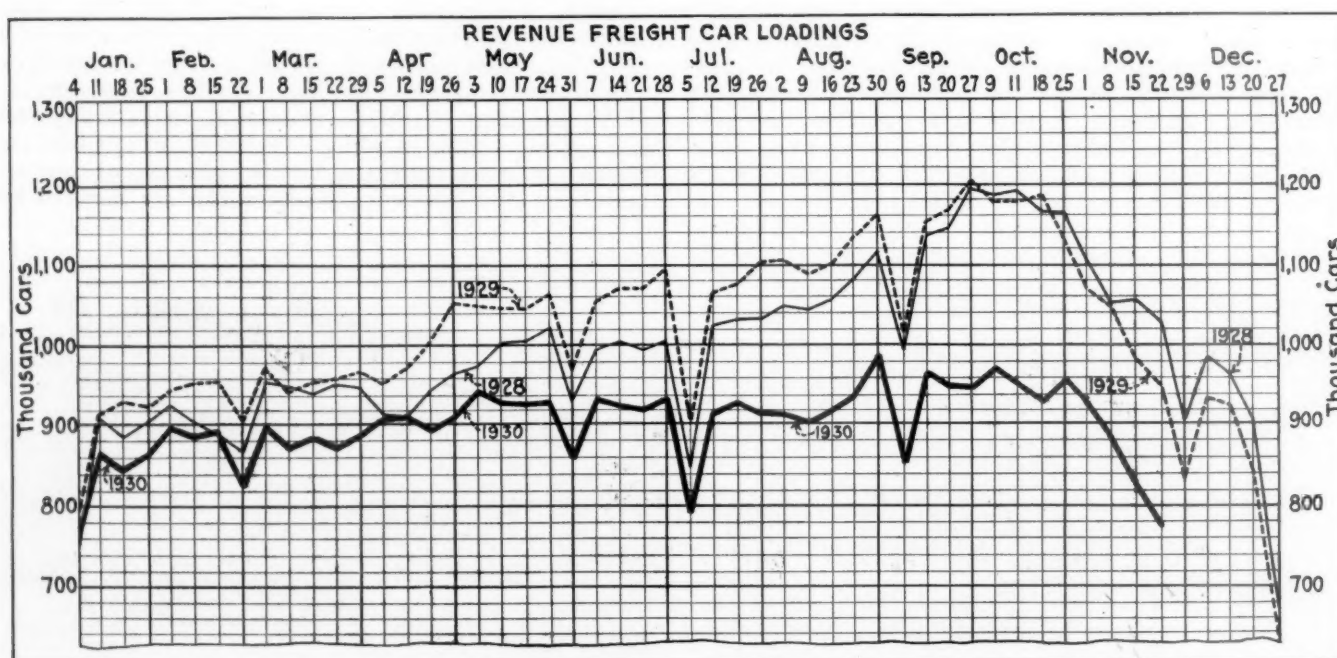
Districts	1930	1929	1928
Eastern	175,072	206,879	234,047
Allegheny	156,009	200,346	214,562
Pocahontas	46,159	57,327	60,969
Southern	117,870	138,199	154,161
Northwestern	89,474	114,573	120,857
Central Western	125,556	150,501	157,906
Southwestern	69,617	81,891	86,735
Total Western Dists.	284,647	346,965	365,498
Total All Roads	779,757	949,716	1,029,237
Commodities			
Grain and Grain Products	36,363	39,780	54,777
Live Stock	24,870	29,821	32,873
Coal	147,921	188,718	200,890
Coke	7,441	11,154	10,559
Forest Products	33,111	54,864	64,715
Ore	8,223	15,744	17,752
Mdse. L.C.L.	229,537	257,825	260,430
Miscellaneous	292,291	351,810	387,241
November 22	779,757	949,716	1,029,237
November 15	829,251	982,926	1,056,120
November 8	881,401	1,048,968	1,054,353
November 1	934,640	1,072,234	1,103,942
October 25	959,335	1,134,360	1,162,974
Cumulative total, 47 weeks	42,401,483	48,653,281	47,172,296

The freight car surplus for the period ended November 15 averaged 469,793 cars, an increase of 41,500 as compared with the preceding week. The total included 255,852 box cars, 159,950 coal cars, 24,890 stock cars, and 8,012 refrigerator cars.

### Car Loading in Canada

Revenue car loadings at stations in Canada for the week ended November 22 totaled 60,608 cars, an increase over the previous week of 2,472 cars and a decrease of 3,970 cars from the same week last year.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada		
November 22, 1930	60,608	31,613
November 15, 1930	58,136	30,954
November 8, 1930	64,881	30,921
November 23, 1929	64,578	35,792
Cumulative Totals for Canada		
November 22, 1930	2,902,394	1,565,950
November 23, 1929	3,249,443	1,926,629
November 24, 1928	3,358,688	1,856,214



# The Railroad Pension Problem

*Why it is essentially like that in all other business organizations  
and can be solved permanently and  
inexpensively*

By Henry E. Jackson

President, Social Engineering Institute, Inc.

**E**VERYBODY is more like everybody else than everybody is willing to admit. There are some who seem to derive satisfaction from the habit of regarding themselves as somehow different or peculiar or unique. It sounds complimentary to put themselves in a separate class. The same tendency naturally manifests itself in business organizations, because all institutions are the lengthened shadows of individuals.

This applies conspicuously to railroads in regard to their pension problem. They have come to believe that their pension problem is so different from that in any other industry, that they have shut out of their mental horizon what other industries are doing to solve the problem. No man can shut other people out without shutting himself in. The railroads have for so long shut themselves in, while considering their pension problem, that they have acquired a distorted and erroneous view of it. This is apparent from the remarks of most all railroad officials and almost all magazine articles about a railroad's pension problem.

What has chiefly led them astray is the fact that they imagine that their pension problem is so different from that in other industries. This is contrary to the fact. Inasmuch as they proceed on a basis which is so divergent from a basic fact, it is not surprising that railroads in general should have been hitherto so confused about their problem. The sooner railroads discover that in all essential respects their pension problem is exactly the same as in any other industry, the nearer they will be to its satisfactory solution. Their problem will be immediately illuminated by approaching it as if it were the same universal problem as in all industries alike, as in fact it is.

The purpose of this article is to submit a bill of particulars to exhibit the fact that the pension problem in a railroad does not differ in essentials from that in any other industry, and that where it does differ on account of the supervision of the Interstate Commerce Commission, it differs only in details of procedure which can readily be adjusted; that these details are so non-essential that it does not make much difference how they are adjusted; and that any railroad which handles its problem on this basis will find a solution for it which is both permanent and inexpensive.

## What Is Wanted

In building up the bill of particulars, I include those items which by common consent the railroads in general consider to be particular difficulties, as indicated by reports of their officers and by magazine writers who have had experience with railroads.

In answering these apparent difficulties, I assume that a railroad, desiring a pension plan, would want it to be so constructed that it would produce some such results as these: Protect the company against superannuation; create good will among employees; provide sufficient

annuity income, so that an employee could be retired when he ought to retire; require the least outlay of money possible to provide the specified benefits; be so operated that the pension liability arising out of each year could be charged off to that year's operating cost; be so financed that the maximum cost for the future can be definitely known instead of being an uncertain and increasing amount; be a dependable plan both for employees and the railroad company, while at the same time preserving freedom of action by future boards of directors. I am sure I can safely assume that the average railroad would regard these results as desirable and would want the type of business-like and scientific plan which guarantees these results, rather than an arbitrary charity type of plan, which serves merely as a substitute for the poorhouse.

## Apparent Difficulties

The chief apparent difficulties which railroads are accustomed to regard as peculiar, and the facts indicating that they apply to all industries alike and are not real but only apparent difficulties, are as follows:

1. *A Reserve Fund*—A supposed difficulty is that it requires so much more money to cover the pension liability with a full cash reserve than to pay these obligations directly in the form of monthly benefits, that this additional present outlay of money will be burdensome. This is not the fact. To begin with, it costs no more to pay an obligation by the reserve method than by the piecemeal benefit method. Theoretically it costs exactly the same, but practically it costs less, that is, a less actual outlay of money.

Let us be specific, considering the two kinds of pension liability which a railroad has just the same as any other industry. Let us here consider the *matured liability* only, that is, the specified benefits to employees now retired and on the pension payroll. An industry, not a railroad, with 40,000 active employees, recently found it had 397 men either on the pension payroll or to go on it when its new plan started. The full cash reserve required to cover the promised benefits for these pensioners is \$614,835. This is paid but once and when paid the plan is square with itself when it starts, so far as matured liability is concerned. This amount may be placed in the trust fund by a single deposit, but it would leave a sufficient margin of safety in the plan's operation to amortize it over a five-year period, making the yearly deposit to be \$135,249. This liquidates this obligation once for all on the employer's part and guarantees the retired employee his promised benefit, whatever may happen to the company's success in the future.

This is not a large sum, although the industry quoted has a large number of pensioners. Moreover, in the case of a railroad, this item does not need to be paid out of operating expenses, as shall be noted later.

The reserve required to cover the annuities for present pensioners is the only matured liability which a railroad, or any other industry, has when it starts a plan. Accurately speaking, this is its only "accrued liability."

### The Contingent Pension Liability!

2. "*Accrued Liability*"—A supposed difficulty is the very large amount of money required to cover with a full reserve what is commonly called "accrued liability," that is, the annuity units which stand to the credit of all active employees for their past years of service up to the time a plan starts. For most railroads this represents a large amount and if the outlay of this amount of money were necessary, it would indeed be a burden, but fortunately it is not necessary. The term "accrued liability" is a misnomer. It is neither a liability nor has it accrued. It is not a fact; it is an outright misdescription of the fact, and should be discarded. What is the fact? It is a "contingent liability," the larger part of which it is now certain will never mature at all, for the obvious reason that a large proportion of present employees will not continue in service until reaching the retirement age.

The contingent liability, in the case of the industry I here use for an illustration, amounted to about \$12,000,000. Regarding this an "accrued liability," three of the largest insurance companies required this amount of money to be paid to them as underwriters for starting the plan, and were compelled by law to require it. What right has this industry to take from its working capital the sum of \$12,000,000 to cover a contingent liability, the larger part of which, in this particular case, we now know will never be a real liability at all? This company felt that it had no such right even if it had had the money.

What it did was to operate the plan itself on a trustee basis, which was just as scientific as if organized by an insurance company. It underwrote the \$12,000,000 of contingent liability with a contract, in order to make its plan dependable. Then it proceeded to deposit annually in its trust fund the amount which was actuarially calculated to be sufficient to cover that part of its contingent liability which was in the process of maturing. Stated in dollars, this deposit the first year was about \$750,000. This covers not only the contingent liability for past service, but also for each year's current service. This deposit in dollars will, of course, vary somewhat each year, but in per cent of payroll it will remain practically constant. Recent discoveries make it possible to determine each year to the point of mathematical certainty the net cost of that part of any industry's contingent pension liability which is in the process of maturing and just as it matures. The cost is not high. It is so low that it can be very comfortably handled by any railroad, as it can by any other successful industry.

In view of the above facts, it seems clear that the fear of the expense of the so-called "accrued liability" now so disturbing to the railroads, is fear of a myth with no foundation in fact. If they wish to banish the fear, all they need to do is to cease regarding their problem as peculiar and look at another type of industry, which has exploded this myth.

### Make the Plan Co-operative

3. *Reciprocity*—Another supposed difficulty which has confused some railroads, is that in order to retain control over their plans and avoid making pension contracts with employees or labor unions, they have sup-

posed that they could not make their plans co-operative and hence have borne all the expense themselves.

We will consider the question of contract in the next section. Let us note here the bearing of this fact on preventing railroads from adopting scientific plans. Failure to construct a plan on the co-operative basis, that is, the employer furnishing half and the employee the other half of the retirement income, increases the cost to the employer and greatly decreases the efficiency of the plan.

When a plan is co-operative, it halves the expense to the employers and gives John Doe double what he pays for. By the joint effort of both, a sufficient retirement income is provided so that it is possible to retire John Doe when he gets beyond his period of usefulness, and thus eliminate a needless waste and expense.

All experience supports the statement that men do not appreciate what they get for nothing, and a pension plan's efficiency is greatly increased when John Doe plays his part and bears his share of expense for a desired result that is to the mutual benefit of both parties in the enterprise.

In this connection it should be noted that the common practice among some railroads to base the pension benefits on the average wage of the last ten years of service, is an expensive fallacy. It not only makes the employer's cost depend on a future unknown and increasing factor, but the cost of this method is approximately 27 per cent more than the cost of the method of basing benefits on the average salary for the whole period of service.

### A Suggested Contractual Plan

4. *Contractual Plan*—One of the chief of the supposed difficulties is that railroad officials think that if they construct their pension plans on a contractual basis, it will commit them to an expense for an indefinite future and prevent freedom of action on the part of future boards of directors. This is contrary to fact and a groundless fear. It is no difficulty.

Every pension plan should be contractual to make it dependable. It is a protection both to employer and employee. Unless it is contractual it is not, strictly speaking, a plan at all, but an arbitrary haphazard distribution of charity doles, to be given or withheld at pleasure. This is the most expensive type of old age relief there is, and it is, of course, for any railroad to decide whether or not it wants it. But if it wants it, then it ought to give up all thought of a scientific annuity plan. The two methods are essentially different.

To make a plan contractual, what exactly does this mean? As we see it, the meaning is no more or less than the following. The employer agrees that if John Doe fulfills his term of service, the retirement income promised him will be paid. To make this promise entirely dependable requires a reserve fund to be set up which guarantees the payment. If the promised retirement income be considered an earned reward for long and faithful service, an employer could not do less than try to make his promise good.

No board of directors should bind future boards of directors and the employer, in making a contractual plan, of course reserves the right to suspend the plan temporarily or withdraw from his part of the plan altogether, if need requires, just as any John Doe has the right to withdraw from the plan at any time.

If the employer should at any time find it necessary to suspend the plan or discontinue it, all he does is to stop issuing annuity certificates to employees, but all cer-

tificates issued up to the time of such action, will be honored at maturity for those employees who finish their term of service; that is, all promises made up to such time will be kept, but no new promises made.

Thus, a plan is contractual and dependable and, at the same time, the directors' right and freedom to suspend or stop the plan is automatically guaranteed. The company here used for an illustration, the day it started its contractual plan, issued a new and simple type of annuity bond or certificate to its employees, containing the statement of the above promise, which constitutes the contract. These certificates cover the annuity units due for past years of service, and each year additional certificates will be issued covering each year of current service.

If it wishes to suspend or discontinue its part in the plan, it merely ceases to issue any more of these certificates. The certificates held by those employees who leave the service are automatically cancelled; those held by employees who remain till retirement will be honored. The question of a contract occasions no difficulty at all. It is a simple working method of procedure, as important for the employer as for the employee. It puts into definite business-like form what the employer naturally ought to do, what he wants to do, and what he actually is doing in most cases.

#### "Level the Cost Through the Years"

5. *Future Increase In Cost*—A supposed difficulty is the fear that the amount paid to pensioners will increase in the future to an alarming extent. This is a real difficulty if railroads continue the type of pension plan they are now operating. The difficulty is that the increase will not only be in large and uncertain amounts, but they will have to pay out of a single year's earning, what should properly be charged against the earnings of other years. This is very unsound and unsafe financing.

But future increase in cost is no difficulty at all if the plan is constructed on a scientific reserve basis, that is, there is no increase. The difficulty vanishes. It is true that in a railroad, or any other industry which has been operating for a certain period of years, the number of pensioners will naturally increase in number. But if the plan is on a proper reserve basis, it makes no difference to the level annual cost, how much pensioners increase in number. The reserve method not only makes it possible to level the cost through the years, but enables an employer to charge off to each year's operation the pension liability arising out of that year.

Instead of organizing their plans on a reserve basis and thus removing this difficulty, some railroads have undertaken extensive and expensive work trying to estimate their probable labor turnover, and hence the probable increase in future cost. This is wholly wasted labor. At the best it can only be a guess. It is obvious that you cannot apply mathematics to the action of the human will. Labor turnover cannot be subject to mathematical calculation. It is determined by so many factors under no one's control, that what may be true today would not be true tomorrow.

Even if the amount guessed at in any particular survey may be approximately correct, the information furnished would not be useful, that is, it would make no difference to the kind of pension plan that is adopted. Under a scientific plan it is possible to know definitely in per cent of payroll for all future years, the level maximum yearly cost beyond which it is not possible to go. The net cost must necessarily be always consid-

erably less than this and is exhibited every month. The only thing we do not know is how much less, and we do not need to know it. If we know the maximum cost and see that it is not high, and if we know that the net cost is always considerably less, these two facts are sufficient.

#### Pension Costs a Regular Operating Expense

6. *An Operating Expense*—A supposed difficulty in starting a plan on the reserve basis concerns the method of charging off the reserves required to be put in the trust fund. Shall they be charged against surplus or against operating expense? This is not an essential, but an accounting problem, yet from the standpoint of practical operation, it has acquired special importance in the case of railroads.

Fortunately the question can be settled without difficulty, because, according to the ruling of November 23, 1928, by the Interstate Commerce Commission, the trust funds need not be charged against surplus but may be charged against operating expense, either or both, so that a railroad is now in a position to decide for itself, basing its decision on the nature of the charge to be made.

Under a scientific trustee type of plan, operated by a railroad itself under a deed of trust, such as I have in mind, a railroad, or any other industry, has two kinds of pension liability and only two—matured and contingent. The matured liability is represented by the reserve required to cover the annuity units to the credit of employees on the retired list as of the start of the plan. The contingent liability is represented by the reserve required annually to be deposited in the trust fund to cover that part of the liability in the process of maturing. This deposit covers both past and current service.

For the sake of clarity, it should be noted that from the standpoint of this liability, there is no past and current service, it is all past service. It is only after a current year's service has been completed that it goes to an employee's credit, or an annuity certificate is issued to him on that year's account. As soon as the liability for this year is thus recognized it immediately becomes a past year and added to the other past years to the employee's credit. In a pension plan it is the same as in actual life, the present is a vanishing point.

I think we would all agree that the depreciation of human machinery is a proper charge against production costs and that, therefore, the cost of a pension plan should be treated as a regular operating expense. The only question is whether the two deposits required should both be charged against operating expense. There seems to be no doubt that the annual deposit to cover contingent liability should be treated as an annual operating expense. But as to the single deposit required to cover the matured liability on present pensioners when the plan starts, this liability was several years in accumulating and it would be entirely appropriate if it should be paid out of surplus which has been accumulated during the same years over which the liability was accumulating. However, this sum comparatively is not large and it could be amortized over five or more years and be charged off as an operating expense if a railroad so desired. In actual practice it probably would make little difference which way it was handled.

#### What Will It Cost?

7. *Cost of a Scientific Plan*—A supposed difficulty is the impression that a scientific reserve plan is expensive. This is contrary to the fact. For a scientific trust-

tee plan operating co-operatively and designed to yield on the average a retirement income of half an employee's average wage, the cost to the employer is not only not high, it is low.

The cost of a plan, of course, will vary with various industries and can be known in any case only after the necessary calculations are made. The industry used here for illustration, is fairly large, has been in operation over 50 years, and has accumulated a large number of old workers. Therefore, the cost of its plan will necessarily be higher than in many industries, and may be lower than in some. It is quite safe to regard its cost as typical of the cost in the average company, large or small. The cost of the plan in this company consisted of two deposits made with the trustees of its fund:

*First:* A deposit of the full reserve required to cover the matured liability on the retired employees as of the start of the plan. This was nine-tenths of 1 per cent of the payroll. It is a definite known sum and is paid but once. It could, if desired, be amortized over a period of five to ten years, depending on the actuarial factors involved. But this company had the money and preferred to pay it all at once to complete the transaction on the matured liability and have nothing to meet thereafter but the regular yearly deposit.

*Second:* The net annual deposit to cover the contingent liability in the process of maturing each year, as represented in the outstanding annuity certificates or credits for both past and current years of service.

To find the net we must start with the gross and work back from that. The level maximum deposit required was exactly 2 per cent of the payroll. This is not the cost, but just the maximum possible limit of the cost. It assumes that no employees will leave the service, which, of course, is a condition never existing. It is used merely to show the company the maximum level limit beyond which the cost cannot go in any future year, and it is necessary for bookkeeping purposes. The real cost is this maximum cost of 2 per cent less the credits on account of annuity units cancelled by employees leaving the service. These credits can be known only as they occur, but it is certain that the annual cost to this company will always be very considerably less than 2 per cent.

It does no damage, and it is interesting to make rough estimates of what the credits due to labor turnover may be. For example, in this company, if the labor turnover continues to be only 75 per cent as much as it is now, the annual cost of its plan will be 1.2 per cent of payroll. In average companies, the cost probably will vary anywhere from 1 per cent to 1½ per cent. In some companies it will be less than 1 per cent.

In the matter of cost, it should be noted that the employer himself determines the factor that fixes his own cost. John Doe's wage is \$100 a month. The employer may decide that 1 per cent of this current wage is the right amount for the employer to continue as annuity income after retirement as reward for long and loyal service. He may make it ¾ of 1 per cent, or 1½ per cent of the average wage, but he will probably decide that 1 per cent is as low as he ought to go to give minimum protection. If so, then the cost of his plan is the amount of reserve actuarially calculated to be sufficient to provide these specified annuity benefits, using both principal and interest in the process, for those employees who survive in the service till retirement.

If a railroad, on this basis, determined by itself, should construct a plan on the trustee method, which permits the application of the group principle to annuities, just as a few years ago the group principle was applied to life insurance, making group insurance avail-

able at low cost, and if it operated the plan itself under a deed of trust, using its own facilities and eliminating all needless expense loadings, then it can be sure that it has a sound dependable plan providing, on the employer's part, the minimum of protection at the lowest cost it is humanly possible to secure it. When it discovers this its pension problem is over. It has found a solution which is permanent and inexpensive. Whatever the net cost may be it is low.

### Still Better Results Possible

So far so good. But it is still better. There is another element which further decreases the cost if a railroad wishes to use it. It is clear that the net cost of a plan will be affected by the interest earnings received by the trustees on their trust funds. It is a supposed difficulty among railroads that they object to withdrawing money from their working capital, placing it in a pension trust fund and earning less interest on it than they could make by using it in their own business. This objection may be valid if the reserve fund were placed with an insurance company, but it is not at all valid if the money were placed in their own trust fund.

In calculating the amount of reserve required in the above plan quoted, the discount rate was 4 per cent. This is a safe and conservative practice. The trustees therefore, only need to earn 4 per cent interest to keep the pension plan solvent at any time. The absolute safety of a trust fund is the first necessity. But it is possible for the trustees of a pension fund with entire safety to secure a much larger return from their invested funds than 4 per cent. It is probable that they can earn as much as 8 or 10 per cent; a larger interest than the railroad would earn on the money and with more safety.

As a student of annuities, I would recommend without any reservation, that at least half the trust fund be invested in well diversified common stocks of the country's basic industries. As long term investments, which investments of pension trust funds are, it has been clearly demonstrated from the experience of the last 60 years that the returns from such investments are much larger than the traditional investment in fixed interest bearing securities like bonds, and with an equal degree of safety.

For example, one of the many tests made by a well-known leader in the investment field, shows the following significant result.

In the exhibit the amount invested is \$10,000 over the period from 1901 to 1922, and the common stocks used for exhibit were selected, not on the basis of any knowledge subsequent to 1901, but on a purely arbitrary principle during the week the investment was made. The results are as follows:

Common Stock	Shares Bought	Amount Invested
American Sugar Refining .....	7	\$980
American Tobacco .....	18	1,008
Continental Tobacco .....	25	1,000
People's Gas, Lt. & Coke (Chi.) .....	10	1,040
Tenn. Coal & Iron .....	15	960
Western Union Tel. ....	12	996
Federal Steel .....	18	1,008
Amalgamated Copper .....	11	1,012
American Smelting & Refining .....	18	990
American Tin Plate .....	18	1,008
<b>Total Investment .....</b>		<b>\$10,002</b>
<b>Total income from stocks (22 years) .....</b>		<b>\$19,780.94</b>
<b>Income on bonds at 4% (22 years) .....</b>		<b>3,800.00</b>
<b>Excess income from stocks over bonds .....</b>		<b>10,980.94</b>
<b>Increase in market value of stocks (22 years) .....</b>		<b>\$5,420.00</b>
<b>Excess income from stocks over bonds .....</b>		<b>10,980.94</b>
<b>Total advantage of stocks over bonds .....</b>		<b>16,400.94</b>

These figures are eloquent in speaking for themselves without further comment. The facts have now become so obvious that the investment departments of some of the largest and oldest banks and trust companies are now recommending this method of making long term investments.

#### Common Stocks As Long Term Investments

There are two conspicuous reasons why common stocks as long term investments are specially appropriate for the trust funds of an annuity plan:

*First:* The number of dollars an employee receives in his old age and their purchasing power are two very different things. After a number of years the dollar's real value may be decreased by half. It has happened before and will probably happen again. If by self-denial an employee accumulated his deposit, which together with his employer's, he expected would yield a certain monthly income of \$100 after 30 years of service, he will receive this nominal number of dollars but their real purchasing value may be equal only to half as much as the purchasing value of the dollars he deposited in the fund. An insurance company contracts only to pay so many nominal future dollars; it makes no difference to it whether these dollars have decreased in value. But the difference it makes to John Doe means hell for him and his family. I will let this word stand because it correctly describes the acute suffering produced if the value of the meager savings of John Doe's lifetime is cut in half after his working strength is gone. If we are justified in describing war as hell, we are justified in describing the havoc wrought by the depreciation in the value of money in the same terms.

If the annuity funds are invested in common stocks this unjust hazard is avoided. If by inflation the dollar depreciates in value over a period of years, the stock in which the reserve fund is invested will increase in value to a corresponding degree, and the returns from the fund both to John Doe and his employer will increase correspondingly. In the test above quoted it will be observed that the market value of the stock over 22 years increased a little more than 50 per cent. This is the basic reason which long ago led me to conclude that the investment of a large portion of annuity trust funds in high grade common stocks under watchful expert management is not only the sound, but, strictly speaking, the only conservative method. It conserves the capital value of the Trust Fund.

We must reckon with the dollar as an ever fluctuating measure of value, because it is the only standard of value available for our use, but the formative principle of our procedure should be our desired purpose to create a dependable degree of real wealth, not merely accumulate a number of the symbols of wealth.

*Second:* Another conspicuous reason for investing a large portion of pension trust funds in common stocks is that it makes an annuity plan useful also as a savings fund for those employees who do not remain in the service till retirement age.

An annuity plan is essentially different from a savings plan. It uses both principal and interest for a guaranteed purpose and thereby makes possible a large result not otherwise possible. It has other distinguishing features as well, not necessary here to name. It is originally designed for employees who remain in it until retirement age, and for its designed purpose it is ideal.

But, as a matter of fact, large numbers of employees in all industries do not continue so long in any one industry. It is inevitable that from their standpoint they

should compare it with other investments and it necessarily suffers by comparison if the return is limited to about 4 per cent, as is now customary. But the investment of the funds, or part of them, in common stocks would immediately transform the annuity plan into a savings plan as well, serving both purposes at once; an annuity plan for employees who remain in service; a saving plan for employees who leave.

Conducted thus as a savings plan, it would be far superior to any other savings fund now available to employees. The invention of the joint stock company has been big with consequences for modern industry. Like all other good things, it is of course capable of serious possible abuse. But its advantages are noteworthy. As a method of organized cooperation, it makes possible the wide distribution of ownership, and in consequence the wide distribution of earnings. To make these larger earnings available to John Doe is a conspicuous and notable service, which can be rendered by a scientific trustee annuity plan. It is obvious, without saying so, that the larger returns on the deposits made by the employer in the fund will still further decrease the cost very materially for the employer.

#### Advantages of "Scientific Reserve Plan"

The cost of a scientific reserve plan, moreover, can be fairly judged only if it is considered in connection with the saving it effects. The cost, as above stated, is low but in the light of the waste it eliminates, the cost is still lower. The economic justification of a scientific plan is that it enables an employer to eliminate superannuation from his plant without doing his employees an injustice. The inevitable consequence of a gratuity type of plan, paying the benefits piecemeal out of current earnings, is to accumulate superannuation, retaining employees in service past their usefulness and thus building up a large amount of "hidden pensions."

This means that no railroad and no industry is in a position to say whether the cost of a scientific plan is much or little until it is compared with their present pension cost, which almost no industry now knows. Another industry, beside the one I have quoted, recently had made for it a scientific reserve plan and also an estimate of its present pension cost. It was found that the cost of the scientific plan was not only less than its present pension cost, but very considerably less than the actual money it was annually spending on this account. This experience demonstrates what it would pay all railroads and other industries to discover, that a scientific trustee reserve pension plan may not be any additional expense at all, but may be the means of decreasing expense.

This sounds like an audacious statement, but it is a literal fact. It is highly significant if true. Any railroad can easily find out whether or not it is true. All it needs to do is to have a scientific trustee plan constructed and its cost estimated, and also an estimate of the present pension cost made and place the two side by side. Then it can see with its own eyes which of the two is higher. Would it not be wise for any industry to discover this fact, lest it should be wasting money without knowing it?

The above facts about cost, the large decrease in outlay of money made possible by the application of the group principle to annuities, the large increase in the interest earnings made possible by their conservative investment, and the needless waste of "hidden pensions" which a scientific plan eliminates, these facts make the cost, hitherto regarded as an obstacle, to be not only not an obstacle but a most attractive item in

a scientific trustee type of plan. No intelligent employer who discovers these facts can hesitate to adopt such a plan, because his failure to do so may involve a preventable injury to himself, his stockholders and his employees.

### In Conclusion

The above bill of particulars seems to me to compel the conclusion that the difficulties which now perplex and baffle the railroads as regards their pension problem are not real but only apparent. Any railroad can make these difficulties to be non-existent if it will undertake the task of constructing for itself a trustee pension plan as if it were not a railroad but just another average American industry, including those elements which by common consent are essential to a sound plan, and which any average man would consider to be most economical, most efficient, and most advantageous both to the employer and employee. I am sure it would discover that it had a plan which best served its needs, and at the same time a plan which the Interstate Commerce Commission would necessarily be willing to approve in all essential respects.

For example; a railroad, when it discovers the marked advantages of trusteeing its pension fund will naturally want to do it for its own sake. If it does, then the deposits it makes in the fund are deductible from revenue for purposes of estimating income tax. It is difficult to see how they could be deductible unless the fund were trusteeed, as the Internal Revenue Department has maintained. In trusteeing its fund a railroad has everything to gain and nothing to lose.

The chief obstacle which at present blocks the way to the adoption of sound scientific practical pension plans by industries in general and railroads in particular, is the fact that they know so many things about pensions that aren't so. It is not altogether their fault. They have been misinformed. They have been needlessly perplexed.

Some subjects are complex by nature, some achieve complexity by the elaboration of technique, and some have complexity thrust upon them by professional experts who think it profitable to keep them mysterious by injecting into them an impressive incomprehensibility. The industrial pension problem hitherto has been seriously handicapped by belonging to all three of the above classes. For this reason almost all plans now in operation are unsatisfactory in operation, unsound financially, involve unknown and dangerous commitments, and yield too small a return for the money expended.

It is true that the subject is necessarily difficult because of the many factors involved; its combination of mathematics and human values; its relation to life and disability protection; its effect on labor turnover; its essential connection with production; and its effective use of preventive measures. It is so easy to make serious blunders in handling these factors that no industry should attempt to construct a plan without the guidance of some one who knows both the actuarial and the practical industrial sides of the subject.

But while the subject is difficult, it is not perplexing. All large and fundamental questions, such as this is, have in them certain basic simple elements to serve as safe guide posts among a multitude of details and by-paths. Recently new methods have simplified and humanized the subject, so that it can be made easily understandable by any industrial leader of average intelligence.

Some railroad official, who has thoughtfully read this article and compared the facts disclosed in its bill of

particulars with the disturbing information he has hitherto received, will probably feel disposed, as he lays the article down, to indulge in a bit of humor over his previous perplexity. I will give him the chance by recalling an incident which occurred in one of Professor Huxley's college examinations at Oxford. He asked a student, "What is a lobster?" The student answered, "It is a red fish that moves backwards." To this Huxley replied, "Your answer is entirely correct except for three things; it is not a fish, it is not red, and it does not move backwards."

If many employers were asked what a scientific pension plan is, they would probably answer, "It is an expensive charity that increases annually in cost." This prevailing opinion is correct except for three things—it is not a charity, it is not expensive, and it does not increase annually in cost.

## President Urges Consolidation and Motor Bus Legislation

WASHINGTON, D. C.

**P**RESIDENT HOOVER'S only recommendation as to railroad legislation in his message to Congress on December 2 was a declaration that further legislation is necessary to facilitate consolidation. He said that "we have determined upon a national policy of consolidation of the railways as a necessity of more stable and more economically operated transportation" and that "in the public interest we should strengthen the railways that they may meet our future needs."

His statement in his recent Cleveland address that the railways were handicapped by certain provisions of the transportation act had led to some expectations that the message might include some discussion of the transportation situation. Bills designed to remove some of the obstacles to consolidation that have been found to exist in the 1920 legislation are pending in Congress but have been side-tracked by the demand represented in the Couzens resolution for a suspension of the commission's authority to approve consolidations until further consideration can be given to permanent legislation on the subject, and consideration of the Parker-Fess bill has also been postponed pending the outcome of the House Committee's investigation of the holding company situation. The House committee expects to receive a report early in the session from its special counsel, Dr. W. M. W. Splawn, who has been gathering statistics on the subject by questionnaire since the last session of Congress and the submission of the report will probably be followed by hearings. Meanwhile the Couzens resolution is still up for consideration in the House, in a form including important modifications from that in which it was passed by the Senate, but Congressional leaders have held out little hope for any action on permanent consolidation legislation at the short session.

The President also mentioned the bus regulation bill, which has been passed by the House and is the unfinished business of the Senate, as one of the measures which he said it is desirable should be completed. The reference to consolidation legislation, however, was made following a statement that the short session does not permit of extensive legislation programs and it was included among a number of subjects which should be placed in consideration with view to preparation for subsequent action, if time does not permit action at this session.

# William N. Doak Appointed Secretary of Labor

*Legislative agent of Brotherhood of Railroad Trainmen  
named to succeed James J. Davis*

WASHINGTON, D. C.

**P**RESIDENT HOOVER on November 28 announced the appointment of William N. Doak, national legislative agent of the Brotherhood of Railroad Trainmen at Washington, as Secretary of Labor in his Cabinet, to succeed James J. Davis, resigned to become a senator from Pennsylvania. Because of a delay in the resignation of Secretary Davis, however, the appointment was not completed until after the session of Congress had begun on December 1 and apparently Mr. Doak cannot actually take his new office until his appointment has been confirmed by the Senate.

Mr. Doak has been legislative agent of the brotherhood at Washington since 1927 and that office was combined with that of editor and manager of *The Railroad Trainman*, the brotherhood's monthly magazine, in 1928, but he had previously been located at Washington as vice-president of the brotherhood since 1916. In this position he has been active in politics and he has taken a leading part in the discussion of railway and labor legislation at the Capitol for years.

During the Hoover campaign he was director of the labor bureau of the Republican National Committee and it is understood that he was seriously considered by the President for appointment to this Cabinet position at the beginning of the Hoover administration in 1929, but he is said to have asked that his name be withdrawn in view of opposition which had developed from the American Federation of Labor. The Brotherhood of Railroad Trainmen, like the other train service brotherhoods, is not affiliated with the A. F. of L. and the opposition was renewed by President Green of the federation when it was reported that Mr. Doak was again being considered. Mr. Green apparently overreached himself, however, by a public statement indicating a belief that the position belonged to the federation and the President, in announcing Mr. Doak's appointment, indicated that that had settled the matter. The President said:

"Mr. Doak has been identified with organized labor all his adult life. For 16 years he has been a general officer of the Trainmen, taking part in great numbers

of labor negotiations. I have received endorsements of Mr. Doak from several score of labor unions, some of whom are members of the American Federation of Labor. I know that Mr. Doak will represent all labor in his public duties, and that he will reinforce the sympathetic attitude of the Administration to the great problems of the wage earner.

"While President Green has publicly stated that he will oppose Mr. Doak's appointment because Mr. Doak's union is not affiliated with the American Federation of Labor, he informs me that he holds Mr. Doak in the highest personal esteem.

"I do not feel that I can consent to the principle of debarment of the railway employes, or other labor unions and associations, or any labor man in the United States, from the opportunity or the aspiration to attain any office in this land. I have the highest respect for Mr. Green and the American Federation of Labor, but Mr. Green's enunciation that appointments must come from the organization in fact imposes upon me the duty to maintain the principle of open and equal opportunity and freedom in appointments to public office."

After the announcement Mr. Green issued another statement in which he said that "The officers and members of the American Federation of Labor have always believed that the Secretary of Labor sitting in the President's Cabinet should come from the American Federation of Labor," that "the

American Federation of Labor is regarded as the American labor movement, speaking for American labor," and that the officers and members "are keenly disappointed because the President failed to give the American Federation of Labor recognition in the selection of a Secretary of Labor." Notwithstanding this it is believed that the appointment will be confirmed by the Senate, as Mr. Doak has a wide acquaintance on Capitol Hill and is personally popular.

He is also well known and respected in railroad circles generally and it is thought that some of the opposition of the federation comes more from the fact that he is somewhat more conservative than many of the labor



William N. Doak

leaders. By his co-operative attitude he has played an important part in bringing about the improvement in relations between the railway managements and the employees' organizations in recent years and in editorials and articles in his monthly magazine as well as in addresses he has been an advocate of fair play for the railroads. He has also done much to bring to the attention of the employees their interest in combatting the governmental tendency toward subsidizing other forms of transportation in competition with the railroads.

William Nuckles Doak was born at Rural Retreat, Va., on December 12, 1882, and received his education in the public schools of Wythe county, Va., and the Southern Business College at Bristol, Va. He entered railway service in 1900 with the Norfolk & Western as a clerk and was promoted to yard conductor in 1904. He served as local chairman of the Brotherhood of Railroad Trainmen from 1904 to 1908 at Bluefield, Va., was general chairman of the brotherhood on the N. & W. from 1908 to 1916, and in that year he was elected vice-president. During the regime of the Railroad Administration during the war he was a member of Railway Board of Adjustment No. 1, and he has taken an active part in the various wage proceedings since, before the Railway Labor Board and other tribunals. He has also acted as arbitrator in various cases.

## Oppose S. P. Acquisition of the Cotton Belt

**P**OSSIBLE closing of the El Paso gateway by the Southern Pacific was stated by representatives of the Missouri Pacific Lines as their chief reason for opposing the application of the Southern Pacific for control of the St. Louis Southwestern in an adjourned Interstate Commerce Commission hearing at Dallas, Tex., on December 1 and 2 before Examiner H. C. Davis. Besides the Missouri Pacific and the Texas & Pacific, officers of the St. Louis-San Francisco appeared at the hearing to oppose the Southern Pacific's application and insist that if it is granted that it be conditioned on the continuance by that railroad of the existing traffic gateways. While officers of the Southern Pacific declared that the gateways would be preserved, attorneys for the road were unwilling to place themselves on record to that effect and officers of the opposing lines pointed out that traffic policies are subject to changes in railroad administrations.

J. B. Payne, vice-president in charge of traffic of the Texas & Pacific, declared that the closing of the El Paso gateway would so reduce that road's traffic on 213 miles of line in western Texas that justification for the continued operation of that section of the railroad would be questionable. A unified transportation system between western Texas and St. Louis, he said, would destroy the present competitive situation and eliminate the Texas & Pacific. Mr. Payne pointed out that the territory between El Paso and Fort Worth is semi-arid and sparsely settled and originates less traffic than the line handles between those two points as a bridge route.

The acquisition of the Cotton Belt by the Southern Pacific would seriously affect the earnings of the Missouri Pacific, C. E. Perkins, vice-president in charge of traffic of that road, stated. Missouri Pacific traffic solicitors would have difficulty in persuading shippers to use the lines in that system when they could utilize the

S. P.—St. L. S.-W. combination as a through line. He declared that, "No single line can compete with the present Southern Pacific system, it is unique in that it serves both the Atlantic and Pacific seaboard." Mr. Perkins insisted that the El Paso gateway should be kept open and further than that stated that the Southern Pacific application should be denied regardless of the roads attitude toward the preservation of the gateways. He said that the proposed purchase is not in harmony with the consolidation groupings of the Interstate Commerce Commission and that to allow it would be in violation of the Transportation Act of 1920.

Examiner Davis fixed January 15 as the final date for the filing of briefs in the case. Louis A. Gerringer, chief engineer of the Railroad Division of the Railroad Commission of Texas, sat with Examiner Davis during the two days of the hearing.

## Eliminate 29 Busy Grade Crossings

*(Continued from page 1219)*

at one end and by the derrick at the other. It was then raised to release the towers, which were picked up by the stiff-leg derrick, thus permitting the girder to be lowered onto its bearings. These temporary towers rested on piles and were moved to the next span where this method of erection was repeated.

The construction of the fill was started in May, 1926. The bridges crossing Harriet street and Sunnyside avenue were started in June, 1928, and completed during November of that year. Work on the river bridge began November 1, 1928, and the structure was completed August 14, 1929. The heavy fill west of the river was started on September 5, 1928, and completed during September, 1929. The Grand Trunk Western began operation over this line and the joint tracks with the New York Central at midnight on September 28, 1929.

The work on the New York Central was carried out under the general direction of R. O. Rote, chief engineer, H. B. Reinsagen, assistant chief engineer, and A. P. Button, engineer of grade separation. I. G. Webster, resident engineer, had charge of all field work. The bridge structures, including the retaining walls, passenger subway and ramps at the station were designed by B. R. Leffler, engineer of bridges. The union station was designed by Fellheimer-Wagner, architects, New York City.

The Walsh Construction Company, Davenport, Iowa, had the contract for all of the work connected with the project, except the fabrication of the structural steel in the bridges. This company did all of the work with its own forces except the erection of the steel bridges, which it sublet to the F. K. Ketter Company, Chicago.

The work on the Grand Trunk Western was planned and carried out under the direction of J. A. Heaman, chief engineer, and F. P. Sisson, principal assistant engineer. The structures were designed by A. N. Laird, bridge engineer and the construction was in charge of W. Glen Heggie, field engineer. Whitcomb & Keller, South Bend, Ind., did the grading east of the river, while the embankment west of the river was constructed by the Walsh Construction Company as an extension of the grading on the New York Central. The Meade-Balch Construction Company, Indianapolis, Ind., erected the bridges at Harriet and Sunnyside streets. Foley Brothers, Inc., and Peppard & Fulton Co. constructed the arch at Mishawaka avenue, and the bridge over the St. Joseph river, including the erection.

# Reciprocity Hearings Resumed

*Commission holds examination of New Haven's buying practice and policies—Over two thousand letters*

**A**FTER a month's recess, the Interstate Commerce Commission resumed its investigation of "Reciprocal Buying" on the railroads with a hearing in New Haven, Conn., beginning on December 2, for the purpose of ascertaining the buying practices and policies of the New York, New Haven & Hartford, under the administration of both the late N. M. Rice, vice-president in charge of purchasing, and his successor, C. E. Smith.

The hearing at New Haven will be the most extended hearing conducted thus far into the affairs of one railroad and was marked by the introduction of over 2000 letters and other documents and records from the purchasing, traffic and executive files of that road. The letters dealt principally with coal negotiations but included correspondence relating to a contract with the Continental Ice Company, a Chicago concern which was prominently considered in the earlier hearings.

On Monday C. R. Painter, purchasing agent of the New Haven, was particularly questioned about purchasing methods under Mr. Rice, while Mr. Smith was encouraged to discuss both his procedure of buying and what he interpreted the policy he choose to call "Traffic Diplomacy" to mean. He was also called upon to express his opinion on the question of buying railway supplies under sealed bids and denying shippers the right to route traffic which they own or control. It was the first time in the investigation that these questions have been propounded to a witness in so direct a manner.

Mr. Painter was not in a position to answer with completeness many of the questions put to him concerning purchasing practices under Mr. Rice. He explained that Mr. Rice was a man of independent judgment and did not consult with him often about the relations with manufactures and shippers and that the extent of his work was largely that of bringing the tabulations of bids before Mr. Rice and placing the orders in accordance with instructions. He would not say that the phrase "Reciprocity is our Watchword," purporting to have appeared repeatedly in Mr. Rice's correspondence, was the slogan of the New Haven but recalled hearing Mr. Rice speak "along that line," and testified that reciprocity is the policy of the road in its purchasing, subject, however, to the provision that the materials must be of a satisfactory quality and price.

## **Buyers Solicit Reports from Shippers**

At several stages in the hearing both Mr. Painter and Mr. Smith were asked about certain reports of tonnage which the New Haven solicited from shippers. It was brought out that these requests were made directly by the purchasing department and took the form of cards which were sent to all firms to which the road was in the habit of sending inquiries for bids on its purchases and that the cards were to be returned to the purchasing department each month, filled out to show both the competitive and non-competitive tonnage routed over the New Haven during the month in ques-

tion. Mr. Painter testified that the practice was originated by Mr. Rice several years ago, when a year's supply of the cards were mailed to all bidders and a strenuous effort made by Mr. Rice to have all firms comply with the request to report their tonnage as outlined. These reports were transferred to a book which showed the total tonnage by firms names but did not distinguish, he said, between the tonnage belonging to firms having associated interests, so that it could not be determined whether the tonnage reported by a firm supplying one kind of material did or did not include tonnage reported by a firm supplying another kind of material. The record was never complete, he added, because some firms declined to furnish or to go to the expense of compiling the figures, and the practice at present is not to follow up the cards which have been sent out, or to do more than to supply cards to the firms which continue to request them from the road.

He said that to his knowledge, the accuracy of the reports received had not been checked and that they were not considered reliable. He was not prepared to say to what extent the records were used by Mr. Rice, particularly in making contracts which Mr. Rice handled personally, but was sure that an unfavorable attitude was not taken in buying from firms which failed to submit reports. He was asked by Examiner Rodgers if the cards might not just as well be thrown into the waste basket if he did not rely upon the shipper's tonnage statements, and he answered that this was true as far as he was concerned; but Mr. Smith later explained that he sometimes referred to the cards in studying the road's reciprocal relations with bidders, particularly in transactions of lesser importance where it would be an inconvenience to the traffic department at the time to make an investigation.

Mr. Painter testified that purchases are placed with the bidder quoting the lowest price where the material is satisfactory but, in answer to further questioning, added that a shipper was often allowed to revise his bid in order to met the lowest price quoted. He said this was done in the interest of reciprocity at the request of the traffic department. Questioned by Examiner Rodgers he said he would tell such a firm that its bid was too high, and, sometimes, about what percentage the price was high, and if the revised bid was not low enough, the road might again advise the shipper until his bid was reduced as low as the quotation of the original lowest bidder. When subsequently asked if the same privilege was extended to all bidders, he said, "No"; and gave the same answer to a question as to whether the original lowest bidder was informed of the transaction. He would not say that the value of competitive bidding under this plan was reduced merely to "putting out feelers" to give the shipper a chance to meet the price, but he testified that the motive in so negotiating purchases was reciprocity.

Mr. Painter said that to his knowledge the road has never paid a higher price to patronize a shipper, and ex-

plained that the cost considered is the cost, including the freight to the line of the road. He asked if the cost of the haul on the home line was considered and replied in the negative.

Referred again to the conditions of purchasing before Mr. Rice's death, Mr. Painter professed not to know much about any pressure being brought to bear on the New Haven by shippers to influence the purchases in their favor nor any influence alleged to have been exercised by the officers of roads to have the New Haven patronize shippers on their lines. He agreed, as the examiner suggested, that this might have resulted from the fact that he, personally, did not have the final jurisdiction to award contracts. Upon further questioning he said that he had seen intimations of threatened boycotts in Mr. Rice's correspondence. He was then asked if it was not a fact that the New Haven "got very active" at a certain period while Mr. Rice was alive in trying to "pacify shippers," and that the traffic department became much exercised over the failure of the purchasing department to pacify the shippers in question and also that certain shippers were very much dissatisfied with their failure to get orders, but Mr. Painter said he did not know.

#### Traffic Diplomacy

C. E. Smith, vice-president of purchases since Mr. Rice's death, in his testimony, much of which was volunteered by way of explaining more fully his answers to the line of questioning, frankly stated that the New Haven believes in reciprocity. The present practice and policy, he said, is to foster the widest possible competitive bidding and after the considerations of quality and price have been properly met, to place the purchases in such a way as to get all the traffic possible. He preferred the expression "Traffic Diplomacy" to "Reciprocity," however, in describing the nature of his activities among the firms from which the road purchases its requirements. When he assumed the purchasing work, he said, he met many salesmen who thought they had not been treated fairly by the road, either because they had not been allowed to bid or because their traffic had not been adequately considered or because the quality of their products had not been recognized. It was "traffic diplomacy," he explained, to investigate all of these cases by going through the old files, in some instances, or by arranging with the engineering or mechanical departments to test and rate the products and otherwise to demonstrate to the firms that every effort was being made to assure fairness. He added that in some cases the technical departments were found to have been in the wrong, as well as the purchasing department, with the result that buying practices were changed to correspond.

#### Shippers Want Orders

He agreed that in some cases the firms refused to be convinced of the good intentions of the road in the absence of orders for their materials but said it was impossible to give all concerns orders and that if anything was wrong with present methods, it was the practice of asking for bids from too many firms rather than from too few. He recalled instances where the lowest bidder got no part of a contract for supplies, but cited a recent contract for work entailing a \$25,000 expenditure where the bids varied from \$18,000 to \$35,000, by way of illustrating his point that the lowest bidder sometimes cannot be awarded the contract because an investigation made after the bids are received shows the quality to be inferior. He did not recall any instances

where insufficient tonnage was the reason for not placing a contract with the lowest bidder but went on to say that, consistent with his "traffic diplomacy," when a firm unfriendly to the New Haven from a traffic standpoint quotes a price higher than the lowest bid but claims to have a better product, such a firm is sometimes given an opportunity to revise its price and is even told sometimes how much of a reduction must be made in the price. If one bidder has only a little competitive tonnage and another shipper has a lot of competitive tonnage the larger shipper is usually preferred, although he said the road would not pay a higher price.

#### Coal Buying

Mr. Smith was questioned at length about the method by which the New Haven's coal is purchased, the commission's examiners particularly inquiring into the practice of buying coal through brokers and the reasons why it was purchased in some sections at a higher price than other coal, used by the road, was being bought in other sections, and why most of the coal was routed over the Pennsylvania. He stated that in his judgment it would be unwise for a railroad to depend on one supply for all its coal and referring to certain comparative statistics of coal prices published in the *Railway Age* to bring to the attention of the examiners that the New Haven was buying its coal, (considered on the basis of the cost without direct freight), at the lowest average cost of any trunk line road in the country. He said the coal was ordered through brokers in New Haven territory in order to influence them to the full extent possible to see the merit in continuing to use the New Haven to haul coal from the vessels inland instead of by motor trucks, which are being used to an increasing degree, and also because experience has demonstrated that more reliance can be placed upon the brokers to insure the delivery of the coal in times of strikes or other trouble than upon mine operators remotely situated from the New Haven. The coal must come from specified mines, however, he said, and copies of all orders for the coal are sent to the traffic department which determines the routing.

The coal is all bought under contracts which specify both the minimum and maximum amounts to be purchased from the mines, but the road buys some coal outside of these contracts. Sometimes, he said, a broker in New Haven territory who may or may not be a shipper, may have a considerable tonnage of distress coal which no other concern but the New Haven could use, as in the case of fuel for its power plants for the electrified zone, and will offer it to the road at a price considerably below the standard price paid under contracts for such coal. Occasionally the road has purchased his coal as an accommodation, in such cases the demurrage accruing after the coal had reached the road being waived.

There is a slight differential, he said, between the cost of coal bought in the Baltimore & Ohio territory and the Pennsylvania but the reason why more coal moves to the New Haven over the Pennsylvania than the Baltimore & Ohio, he thought, was because of the differentials between the different rate districts, the freight rate being sufficiently lower over the Pennsylvania lines because of the rate structure to more than offset the difference in the delivered cost of the coal. The price of \$1.05 per ton at the mines was determined, he said, after advertising for sealed bids from the brokers on 200,000 tons of coal and finding not only that about 100 bids were received in response to the advertisement but also that many of the bidders told him that they

would meet the lowest bid. As a result a price 54 cents above the lowest bid was established as a standard base price and the traffic department was consulted as to the proper way to divide the contracts for the entire year's supply.

He said it was customary to receive letters from the various roads expressing an interest in the New Haven's purchasing from mines on their line but he did not consider that pressure was brought to bear and was sure that the Pennsylvania had not exerted pressure. He was not familiar with activities of the late J. H. Harding, a former director of the New Haven, nor of the activities of Jay Cook who is serving as a director of both the Pennsylvania and the New Haven, and did not believe that the Pennsylvania directly or indirectly controls the policies of the New Haven.

#### Splitting Commissions

Asked if brokers had ever offered to split their commissions, he said they have often called after formal bids have been made for various purchases and offered to reduce their prices, and that it was common to accept such proposals, adding that often the prices of commodities appear to be fixed by some agreement and that he is not always in sympathy with such arrangements. Cement, rail, cast steel couplers, some kinds of pipe and rubber goods were cited as classes of materials in which fixed prices appeared to prevail.

He was then asked why the road purchased its rail from two concerns instead of one in view of the fact that the cost for the rail to the line from one of the mills was \$25,000 more because of the additional freight charges. His explanation was that it was desirable to use rail from at least two sources in order to have the benefit of the service results of each rail by which to measure the quality of the other. Inspection at the mills, he said, is not sufficient.

#### Sealed Bids and Restricted Routing

Asked to express his opinion regarding the applicability of purchasing supplies on the basis of sealed bids, he said it would be a great disadvantage to a road to do so, entailing a great amount of additional clerical work and increasing the amount of selling pressure. He said that after the sealed bids were taken in the recent coal buying test, he was confronted with coal salesmen at all hours and at the most unexpected moments for a period of about 10 days before to 10 days after the bids were opened. He was sure it would take many more assistant purchasing agents to handle the work. Such an attempt to divorce purchases from traffic he likened to the 18th amendment, declaring that there would then be "bootlegging" of reciprocity but the reciprocity would continue just the same. The comparison between letting shippers route their traffic as at present and denying them that right he said reminded him of the Russian situation by taking away a right which he thought properly belonged to the shipper. He also thought it would cause endless confusion. He testified, however, that it was the practise of the road to do some routing now, and said that it was not accompanied with any confusion.

Before Mr. Smith was excused on Monday, the examiner questioned him further about his policy of "traffic diplomacy" and when he replied that it meant doing "everything necessary to keep shippers friendly other than to accept materials of inferior quality or the payment of premiums," he was asked if the recommendations of the mechanical department and other users were recognized, and replied that sometimes the departments insist on designs and purchases that embarrass the road and make enemies "for us." He added that it

was a part of the "traffic diplomacy" for the purchasing department to work "prayerfully" with the other departments to have them work with the purchasing department and concluded with the statement that the New Haven never buys anything that "either they or we don't consider satisfactory."

On Wednesday, B. Campbell, vice-president of traffic of the New Haven until his recent retirement, testified that reciprocity was still the watchword on the New Haven and expressed the opinion that there was probably greater cooperation between the purchasing and traffic departments along that line now than before Mr. Smith became vice-president of purchasing.

#### Rate Divisions

The examiner wanted him to explain the circumstances under which the New Haven got a better division of freight on the coal shipped over the Pennsylvania than on coal shipped over the Baltimore & Ohio and why it was that the latter road was short hauled on certain coal originating on its line and the Pennsylvania got the long haul, particularly in view of the testimony of Mr. Smith that the New Haven specified the routing of its coal. Mr. Campbell was not prepared to clarify the subject at the time and was asked to prepare certain information for a later hearing. It was his recollection, however, that the question of divisions in the coal tariffs are determined by the roads.

#### Reciprocity Value Questioned

He explained that the New Haven is probably less subject to the reciprocity activities of shippers than many other roads by reason of the smaller amount of competitive traffic in the territory, but he thought it had become more acute in the last four or five years. He was under the impression that it was initiated by the shippers. He would not say it was embarrassing or annoying but did not think a road stood to gain much from the practise, adding that traffic might be gained in some cases only to lose traffic in other cases as a result of reciprocity activities of a competing line. He said he did not welcome the practise in certain of its present forms and when finally asked by Examiner Rodgers if he thought it would be a good thing if reciprocity buying was discontinued, his answer was, "Yes," providing that all the roads would discontinue it. He agreed that the larger road probably has an advantage over the smaller road by resorting to the practise and that the same was true of the large shipper in relation to the small shipper.

#### Icing Contracts

Additional evidence of the reciprocity activities of the Chicago meat packers and particularly those of R. O'Hara, freight traffic manager of Swift & Co., was brought to light when over a hundred letters and records of draft gear negotiations and almost 200 letters concerning icing operations and facilities involving the New Haven were introduced at the hearing on Tuesday. The icing letters showed that in 1927, the New Haven entered into negotiations with the Continental Ice Company (of which W. J. Sinek was president and R. O'Hara was a stockholder), and eventually made a 20 year agreement with that concern for its car and other icing at Maybrook, where the road owned a natural ice facility which was operated by the Pacific Fruit Express Company.

The correspondence opened with a letter from the western freight traffic manager of the New Haven at Chicago in which the latter stated that "a responsible party who does not care to have his name mentioned

at this time" wanted to build a plant at Maybrook and that "the individuals back of the company control a very heavy tonnage of perishable freight" and that if the New Haven did not contract with that company, it would endeavor to make a contract with the Boston & Maine. The negotiations were delayed considerably as a result of the objections of certain officers to severing relations with the Pacific Fruit Express icing arrangement and particularly because of prolonged objections, principally from N. M. Rice, then vice-president of purchasing, over the ice purchasing terms which originally called for the payment of \$5.20 per ton for bunker ice, among other things, as compared with an average charge of \$4.95 per ton for bunker ice made by the Pacific Fruit Express. The proposal was also objected to because it allowed no reduction from that price unless the road took over 20,000 tons a year which Mr. Rice and others claimed was greatly in excess of the consumption but which the traffic department felt would be exceeded by reason of the additional perishable freight which they were led to believe would be routed that way by Swift & Co. The Pacific Fruit Express also agreed to reduce their charge under certain conditions. After many conferences in which the late E. J. Pearson, then president of the road participated, the Continental price was reduced to \$4.95 for bunker ice and the natural ice supply was abandoned for the plant of the Continental.

Mr. Campbell said that as far as he knew the New Haven had not previously considered changing to artificial ice at Maybrook and that competitive bids had not been obtained. He testified that R. O'Hara was present at some of the conferences and that he was practically told both by Mr. O'Hara and Senig that the contract would result in increased business and that he was influenced by the promises made as well as the possibility of losing traffic to the Boston & Maine if the contract did not materialize. He was asked if the contract was not finally made without the approval of Mr. Rice and that the latter did not receive a copy until he requested it, but he did not recall that such was the case.

The contract was signed in January, 1928, subsequent to which the letters showed that the traffic department became "anxious" about the tonnage they had expected to get. On May 11, E. V. Murphy, general western freight agent, wrote a letter to his department in New Haven about certain freight for Boston, Mass., in which he said in part:

Up to and including May 5, I have not seen evidence . . . of any material increase in this business and Mr. O'Hara has been so informed.

In July of the same year Mr. Campbell replied to a letter from Mr. Rice in which he said in part:

The situation with Swift & Co is somewhat tender and I think it would be better to let matters drift along for a while.

About the same time, as a large number of letters showed, the situation with the Continental Icing Company was complicated by the fact that the ice was condemned by the health department of the state for drinking and other domestic uses and that the State of New York also forbade its use for such purposes until proper sterilization facilities had been installed. It was also brought out that a year after the contract was made the Continental Ice Company with its several plants was merged with the City Ice and Fuel Company of Cleveland, Ohio, at a cost to the latter around \$4,000,000.

A further report of the hearings involving the New Haven road will be published in a later issue.

## Looking Backward

### Fifty Years Ago

Now is the time for worried and exasperated car accountants to agitate for the adoption of the per diem plan of charging for the use of cars which some of them have long advocated. For weeks a continuous cry has arisen all along western roads for more freight cars. Meantime thousands of cars are lying idle on side tracks and used for storage, or are industriously engaged in the local service of foreign roads. If the plan of charging about 50 cents for every day's absence of a car from its owner's line were in general force, much of the abuse would be ended.—*Railway Age*, December 9, 1880.

The president of the Union Pacific and the vice-president of the Central Pacific [now part of the Southern Pacific], on October 15 requested an opinion from the auditor of railroad accounts of the Interior Department as to the expediency and wisdom of a consolidation of those two railroads. The United States auditor replied that he considered a consolidation of the two properties to be an act of necessity for their future prosperity and quoted an Act of Congress to set aside any question of their right to consolidate. He also declared that the consolidation would be advantageous to the creditors of the companies, including the United States, and to the patrons of the roads.—*Railroad Gazette*, December 3, 1880.

### Twenty-Five Years Ago

Preliminary work was begun on November 24 on the driving of the tunnel [the Moffat tunnel] through the Continental Divide for the Denver & Northwestern Pacific [now the Denver & Salt Lake].—*Railway Age*, December 8, 1905.

President Roosevelt in his message to Congress has given the country a gratifying surprise. Instead of a radical attack upon railway methods with recommendations for drastic legislation, he discussed the means for regulating interstate commerce in a conservative style. The ideas which he embodied in his already extensive program for railway legislation included a limitation of the hours of labor of the employees in train service, compulsory installation of block signals upon railroads engaged in interstate commerce, public inspection of accounts of common carriers and conferring upon the government the right of civil action against the beneficiary of a rebate for twice the value of the rebate.—*Railway Age*, December 8, 1905.

The Erie continues to furnish interesting, even exciting, contributions to railway history. On September 22, J. P. Morgan & Co. purchased controlling stock of the Cincinnati, Hamilton & Dayton [now part of the Baltimore & Ohio], controlling the Pere Marquette and the Chicago, Cincinnati & Louisville [now part of the Chesapeake & Ohio]. A week later the Erie purchased these properties from the Morgan company. On November 24 the Erie directors annulled and rescinded the purchase and the properties were taken back by Morgan. On December 4, the Cincinnati, Hamilton & Dayton and the Pere Marquette were declared insolvent and unable to meet obligations and placed in the hands of a receiver.—*Railway Age*, December 8, 1905.

### Ten Years Ago

G. W. Bichlmeir, purchasing agent of the Kansas City Southern, has been appointed purchasing agent of the Union Pacific, with headquarters at Omaha.—*Railway Age*, December 3, 1920.

The American Short Line Railroad Association has completed the organization of its traffic department, one of whose important functions will be the assistance of short lines in their negotiations with the trunk lines for better divisions of joint rates.—*Railway Age*, December 3, 1920.

## Communications and Books

### Adequate Motor Truck and Bus Taxation for Farm Relief

WARREN, OHIO.

TO THE EDITOR:

One of the great burdens which farmers have to bear is taxation. Is it not time that they should be relieved of such burdens by making the big users of the highways pay for their cost? This would put railway and highway competition on equal grounds. Of course a ton-mile or passenger-mile basis for bus and truck taxation would seem to be more equitable, but it would hardly be practical on account of the expense of collection. We already have the machinery for collecting the gas tax, so it would appear to be the most practical. Why should not the railroads, their employees and the farmers get together and request this from the government?

R. N. FISK.

### A Specific Formula for the Fair Taxation of Motor Coaches and Trucks

BROOKLYN, N. Y.

TO THE EDITOR:

I have read with great interest the editorial in the *Railway Age* of November 19, "Economic Equality of Opportunity for the Railways." You have soundly and forcefully shown the economic inequality which results from differences of regulatory policy and the failure to charge competing agencies of transportation for the use of facilities provided for them at the expense of the taxpayers.

There is another economic inequality which also deserves publicity and emphasis, namely the inequality of the distribution of the burden of the general expenses of government as between the railroads and competing agencies of transportation. In 1929 the railway tax accruals of Class I railways in the United States amounted to \$396,682,634, which was 6.32 per cent of total operating revenues for that year. In other words, these railroads paid 6.32 cents taxes out of every dollar received for railroad service. In 1929 the average receipts per ton-mile were 1.076 cents and the average receipts per passenger-mile 2.808 cents. Applying the above percentage (6.32 per cent) to these average receipts we find that .068 cents was paid in taxes from the receipts for each ton-mile and .177 cents was paid in taxes from the receipts for each passenger-mile.

Unless other agencies of transportation contribute an equal amount per ton-mile or per passenger-mile toward the general expenses of government, an economic inequality exists. There is entirely too great a tendency to confuse payments to the government for the use of facilities with payments which can properly be called taxation. If, as is usually the case, a carrier by motor vehicle fails to pay to the government the full cost of its use of the highways provided at public expense, it is obvious that so far as real taxation is concerned that carrier is entirely tax-exempt. By real taxation I mean a contribution toward meeting the general expenses of government as distinguished from the public expenses from which the carrier derives special benefit.

Economic equality, therefore, will not be reached by raising the taxation of carriers by motor vehicle only to the point where it will cover the cost of their use of the highways. Until such carriers are taxed, not only enough to compensate for their use of the highways, but in addition thereto .068 cents per ton-mile and .177 per passenger-mile as a contribution toward the general expenses of government, true economic equality will not be attained. The taxation of competing agencies of transportation must be raised to this level in order to relieve the railroads of an unjust and oppressive handicap in their competition with these other agencies.

Very truly yours,  
GEORGE G. REYNOLDS.

### Books and Articles of Special Interest to Railroaders

(Compiled by Elizabeth Cullen, Reference Librarian,  
Bureau of Railway Economics, Washington, D. C.)

#### Books and Pamphlets

*Message of the President of the United States Communicated to the Two Houses of Congress at the Beginning of the Third Session of the 71st Congress 1930.* Reduced rates for drought relief are mentioned in connection with agriculture (p. 6) and the section "Railways" on p. 9 summarizes consolidation policy. 12 p. Pub. by U. S. Govt. Print. Off., Washington, D. C., 5 cents.

*Modern Motive Power for Railways and Railway Tasks of Immediate Importance*, by L. K. Sillcox. Two talks recently made at Harvard, in the second of which there is a discussion of essential qualities for leadership, p. 10-16. 9 and 17 p. Pub. by New York Air Brake Co., New York City. *Apply.*

*The Railroads—Past and Future.* Another presentation of the position of railways in a competitive era from an angle different from that of Mr. Sillcox's listed above. 17 p. Pub. by J. S. Wilson, Jr. & Co., Baltimore, Md. *Apply.*

#### Periodical Articles

*Legislative Provisions on Dangerous Trades for Minors.* A survey of provisions of State laws with citations, that is useful for reference. *Monthly Labor Review*, November 1930, p. 1097-1114.

*The Locomotive Assembling Section of the Kolomensky Plant.* "... over the increasing network of railroads, these monsters will carry the gospel of Communism to isolated villages where peasants still cling to individualism." *Nation's Business*, December 1930, p. 26.

*Power from the Tropical Seas*, by Georges Claude. Professor Claude's experiments have been discussed in the press. This lecture delivered to the Metropolitan Section of the American Society of Mechanical Engineers in New York describes the purposes of his experiments, the methods used including the submergence of a line of 6-foot pipe a mile and a quarter in length, and the future prospects. "Without underrating the problems that remain to be solved, I affirm my faith in the realization of wonderful plants running ceaselessly throughout the year, unaffected by the seasonal scarcity of water in streams or variations in the cost of coal; and I hold all this is not the task of a remote future, but one of tomorrow." p. 1044. Editorial comment on page 1109 points out that "Claude's life is full of instances where he did things that every one considered next to impossible." *Mechanical Engineering*, December 1930, p. 1039-1044.

*Research in Dull Times.* "It is not generally realized that even if the very largest companies, worth from one-half billion to four billions and upward, were to be deprived of the results of research carried out within the last ten years, they would have to be sold out by the sheriff in short order." p. 1107. *Mechanical Engineering*, December 1930, p. 1107-1108.

*You'd Better Study Freight Rates*, by Oliver Wesson. "It is a humorous opinion common to all traffic departments that the man who really understands railroad rates will never understand anything else. \* \* \* Yet there is now the necessity that major executives turn their attention to this field. No longer can rate treatment and related matters safely be left to the consideration of the small group of experts habituated to keep understanding eyes on that curious field. And, despite the complexities that obscure freight rates, the laymen can understand some of the general causes impelling their intricacy." p. 23. Topics considered include "No cost accounting," "Contesting adjustments," "A natural rate structure" and "A sign of progress." *Nation's Business*, December 1930, p. 23-25, 98.

# Odds and Ends of Railroading

## Kaiser's Body-guard

Carl Henry Volker, recently retired as section foreman for the Missouri-Kansas-Texas at Abbott, Texas, was, from 1884 to 1887, personal body-guard to the Kaiser of Germany.

## "Bob-Cat" Record

H. A. Temple, machinist for the Illinois Central at Memphis, Tenn., claims the railway "bob-cat" shooting record. He was out shooting squirrels when he bagged a wildcat, which weighed 47 lbs.

## More Mayors

Correspondents call our attention to more railway mayors. Ralph W. Jennings, chief clerk in the advertising department of the Chicago, Burlington & Quincy, is mayor of Orland Park, Ill. John F. Sullivan, conductor for the Central Vermont, is mayor of St. Albans, Vt.

## Shortest Passenger Run

The electric shuttle train running between Broad Street and West Philadelphia stations, in Philadelphia, has the shortest run of any regularly scheduled main line passenger train in the country, according to W. H. Hines, its conductor. The round trip of about two miles is made frequently to enable passengers from downtown Philadelphia to make connections with through trains for Wilmington, Baltimore and Washington.

## Vice-President Gets Diplomatic Post

C. W. Galloway, vice-president in charge of operation and maintenance of the Baltimore & Ohio, has been appointed by the Austrian Government as Consul for Austria in the States of Maryland and Delaware, with headquarters at Baltimore. The Austrian consulate appointment is Mr. Galloway's first diplomatic post. As consul, Mr. Galloway will set aside the hour from 11 to 12 in the mornings of week-days, except holidays, for the conduct of consulate affairs.

## To Smoke or Not to Smoke

Another barrier of New England conservatism is being pressed by modern trends. With requests from women and from men that smoking be permitted in its dining cars, the Boston & Maine Railroad has arranged for determination of the question anew by ballot of dining car patrons. They are being asked to say whether smoking shall be permitted, or the long standing prohibition maintained. In balloting, Boston & Maine officers are giving women equal rights with men, and asking only that they indicate whether it is a woman or a man who is voting.

## Predictions

The following interesting view of the infant industry of railroading was printed in the Herald of Glasgow, Scotland, 100 years ago:

"If the railway system shall spread through England, Edinburgh will be brought within a 12 hours' drive (of London), or be as near as Bath is now, and Bath be scarcely further than Richmond. The advantage of this accessibility, for trade and intercourse of all kinds, would be beyond all calculation, and would almost entirely change the face of society. If the railway were also to be adopted on the Continent, the furthest point of Europe would be at a trivial distance; yet even the railway may be exceeded. We do not despair of the steam engine being applied to ballooning. It only requires to be made on a lighter and more compact principle, and to require less fuel than at present, to be made the directing and moving power of the balloon. Then difficulty and distance would vanish, mountain and sea, climate and cloud, would be no barrier. The intercourse of nations might be carried on at a height above

mountain and storm, and the world would for the first time since the patriarchal age be one great family, one brotherhood, rejoicing in the interchange of all the bounties of earth and heaven."

## Whales and Rails

The popularity of stuffed whales, and their movement to and fro about the country, has inspired Gene Morgan, of the Chicago Daily News, to produce the following effusion:

If you can judge from a cursory glance, the railroad business is picking up. Perhaps there are fewer chair-car passengers than formerly, but there are more whales. The air transport lines and the motor-coach companies get little of this new business. Railroads are getting out attractive folders of special interest to visiting whales. Competition is keen and the advertising attempts to show that it makes a whale of a difference which line is selected. One whale exhibitor is suing a railroad company for \$20,000 because it wouldn't carry his 60-ton whale. Perhaps, being a baby whale, it tried to get by the conductor on a half-fare ticket. But to a ticket puncher that story invariably sounds fishy. However, no railroad man would be so heartless as to put a whale off the train in a section of the land which has been so hard hit by the drought that young minnows are taking swimming lessons by correspondence. Perhaps the 60-ton whale refused to take an upper berth when there were no others to be had. No doubt it had other complaints—but when a whale insists upon infesting the washroom of the sleeping car in the morning, there's really no way to avoid overcrowding. All in all, however, these whale excursions are taking the rails out of rails. Your average whale exhibitor is an honest, straightforward chap, who doesn't try to bilk a railroad company on a half-fare by carrying the whale on his lap.

## France Celebrates Railway History

The description of the historical railway event shown in the illustration, as given below, was composed by a Frenchman, and the quaint English is too good to spoil:

"The first French passenger train which circulated between Paris and St. Germain was put again to the rails on July 6, to commemorate this so noble centenary. A huge crowd, vociferously in applause, attended the voyage. The train left the St. Lazare station, acclaimed by Parisians, who accoutered themselves in 1830 styles."



The First French Passenger Train "Circulates" Again

# NEWS

## Brooklyn to Have Store-Door Freight Services

*B.-M. T. inaugurates collection and delivery by motor truck*

The South Brooklyn Railway Company, a subsidiary of the Brooklyn-Manhattan Transit Corporation, has inaugurated a store-door freight service by motor truck in the borough of Brooklyn, New York City, under tariffs which became effective November 27. The service which is restricted to carload freight is available in all parts of Brooklyn and is designed to co-ordinate with the rail service of carriers and contract terminals.

Firms using this service provide space on their premises for trailers. For outbound shipments, trailers are placed at the shipper's plant at the time specified by him. When freight is loaded on the trailers by the shippers, railroad responsibility starts. Similarly, on inbound shipments, railroad responsibility continues up to the time of delivery of the freight on trailers at the consignee's premises, where the consignee unloads. The transfer of freight between the trailers and railroad cars is performed by the carrier and the cost thereof absorbed in the freight rates.

The South Brooklyn Railway has been making similar deliveries by shunting trolley freight cars over the tracks in Brooklyn for more than twenty-five years. The new service is a complementary innovation available to firms not located on a trolley line or where the construction of the plant does not permit the introduction of a freight car siding. Paramount Station, Brooklyn, is the name of the new station to and from which freight intended for the store-door handling is shipped.

Meanwhile the proposal to have the Railway Express Agency institute store-door service for all railways serving New York is undergoing further study; no announcement of action in connection with this proposition has been made during the past two weeks. Another development in connection with freight trucking in New York was the proposal of the Pennsylvania and the Lehigh Valley to abandon their off-track inland stations on Manhattan and return entirely to pier deliveries of freight. Cancellation of these inland station tariffs, however, has been suspended by the Interstate Commerce Commission.

## Los Angeles Station Litigation

The Supreme Court of the United States on December 1 found "probable jurisdiction" in the Los Angeles union passenger station case, which is now before the court for the third time, involving questions as to the validity of orders of the California railroad commission requiring the railroads to build the station. The court has also found probable jurisdiction in the case in which the Kansas City Southern and other western roads are contesting the validity of the Interstate Commerce Commission's order in the private car case.

## Would Eliminate 1931 Mechanical Conventions *Curtailment proposed in view of present general business conditions*

In a letter recently received by the secretaries of the various railway mechanical department associations which usually hold annual meetings or conventions in the spring and in the fall of the year, the General Committee, of the American Railway Association, Mechanical division, requests that these meetings be eliminated for 1931. In view of present general business conditions, particularly as they affect the railroads, the General Committee states that the Mechanical division will curtail its own annual meeting for 1931 and eliminate the meetings of as many committees as possible, restricting others to one or two meetings.

The letter also announces the appointment of a subcommittee consisting of J. Purcell, assistant to the vice-president, Santa Fe, Chicago, E. B. Hall, general superintendent of motive power and machinery, Chicago & North Western, Chicago, and F. R. Mays, general superintendent of motive power, Illinois Central, Chicago, "to develop what consolidations can be made in the various railway mechanical conventions in the interests of economy and improved handling of mechanical subjects." It is planned to hold meetings of this subcommittee and of representatives of the various mechanical associations early in 1931 to consider this problem.

## Ten Months' Net Income Reduced by 31 Per Cent

*Net totals \$772,440,930, equal to return of 3.51 per cent*

Class I railroads for the first ten months this year had a net railway operating income of \$772,440,930, which was at the annual rate of return of 3.51 per cent on their property investment, according to reports compiled by the Bureau of Railway Economics. This was a decrease of 31 per cent as compared with the ten months of 1929, when their net was \$1,116,066,690, or 5.19 per cent.

Operating revenues for the ten months totaled \$4,566,237,799, compared with \$5,391,134,117 for the same period last year or a decrease of 15.3 per cent. Operating expenses amounted to \$3,378,874,380, a decrease of 11.6 per cent.

The railroads in the ten months paid \$308,490,898 in taxes, compared with \$348,701,019 for the same period last year, a decrease of 11.5 per cent. For October, the tax bill amounted to \$32,349,586, a decrease of \$7,393,719 under that of October the previous year.

Eighteen Class I railroads operated at a loss in the ten months of 1930, of which six were in the Eastern district, two in the Southern and ten in the Western.

Net railway operating income by districts for the first ten months of 1930 with the percentage of return based on property investment on an annual basis was as follows:

New England Region .....	\$ 36,947,858	4.70%
Great Lakes Region .....	122,156,801	3.20%
Central Eastern Region .....	166,694,929	3.63%
Poconos Region .....	70,224,825	7.34%
Total Eastern District .....	396,024,413	3.90%
Total Southern District .....	73,522,269	2.67%
Northwestern Region .....	84,070,712	2.77%
Central Western Region .....	149,058,951	3.66%
Southwestern Region .....	69,764,585	3.49%
Total Western District .....	302,894,248	3.33%
Total United States .....	772,440,930	3.51%

Class I railroads for October had a net of \$112,251,002 which, for that month, was at the rate of 3.31 per cent. In October last year, their net was \$153,201,532, or 4.62 per cent.

Operating revenues for October amounted to \$483,454,738, compared with \$609,358,153 in October last year, a decrease of 20.7 per cent. Operating expenses totaled \$326,285,795, a decrease of 19.4 per cent.

In the Eastern District for the ten months the Class I roads had a net of \$396,024,413, at the rate of 3.90 per cent,

(Continued on page 1248)

## Roads Urge Commodities Clause for Pipe Lines

*Would place these competitors under restrictions applied to railways*

Legislation which would place pipe line common carriers, subject to the Interstate Commerce Act, under the same restrictions as railways with respect to the transportation of commodities in which they are interested is advocated by the Association of Railway Executives in a recently-issued pamphlet detailing the program which was adopted on November 20 at New York, an outline of most of which was published in the *Railway Age* of November 22, page 1087.

The pamphlet is entitled, "Declaration of Policy Deemed Necessary to the Continuance of Adequate Transportation Service to the Public." It repeats, in greater detail with supporting statistics, the suggestions of the November 20 statement as to legislation which would place highway and water carriers on an equitable basis with railways and adds comment on pipe lines.

The pamphlet concludes with the following statement:

"All basic figures given in this statement are derived from the reports of the Interstate Commerce Commission or from other Governmental sources and are open for inspection and verification.

"For the policies recommended herein by the Association of Railway Executives they bespeak the earnest and thoughtful consideration of the public, from the standpoint of the national interest in maintaining in the highest degree adequate and efficient transportation in every modern form, with equal opportunity for all."

The restrictions which the railways would impose on pipe lines are those to which the railroads are now subjected to under the so-called commodities clause of the Transportation Act. This is paragraph 8 of section 1 which sets forth that "..... it shall be unlawful for any railroad company to transport ..... any article or commodity, other than timber and the manufactured products thereof, manufactured, mined or produced by it, or under its authority, or which it may own in whole or in part, or in which it may have an interest direct or indirect, except such articles or commodities as may be necessary and intended for its use in the conduct of its business as a common carrier."

It is not anticipated that bills embodying the railway proposals will be submitted to the present congress but rather they will be recast into a concrete legislative program for presentation when the new Congress assembles.

### New Equipment Installed

Class I railroads in the first ten months of 1930 placed 73,887 new freight cars in service, the Car Service Division of the American Railway Association an-

nounces. In the same period last year, 68,073 new freight cars were placed in service. Of the new cars 38,443 were box cars, an increase of 5,264. There were also 26,906 new coal cars, an increase of 2,013. In addition, there were installed 3,583 flat cars, 3,657 refrigerator, 913 stock, and 385 other cars. On November 1 there were 5,781 new freight cars on order compared with 33,642 on the same day last year, and 6,081 two years ago.

The railroads also placed in service in the first ten months this year 694 new locomotives, compared with 612 in the same period in 1929. New locomotives on order totalled 139 compared with 294.

### The Canadian Roads in October

Recent statistics on Canadian carloadings are borne out in the earnings statement for the month of October issued by the Canadian Pacific Railway. Despite a cut of \$2,283,635 in operating expenses from October of last year, the company's net for the month shows a decrease on the same comparison of \$755,744, due to a drop in gross of \$3,039,379 to \$17,113,063 from \$20,152,442 shown in that month last year. Net at \$6,554,092 compares with \$7,309,836 in 1929, and \$6,732,265, in September of the current year.

For the ten months of the fiscal year ended with October, gross is shown at \$149,795,223, against \$178,091,528, in the like period of last year, a decrease of \$28,296,305, while expenses at \$120,629,697 compare with \$142,649,902, a decrease of \$22,020,205. Net on the same comparison shows a drop in the current year of \$6,276,099 to \$29,165,526.

The following table shows the revenues, expenses and operating net for the month of October and for the ten months of the fiscal year ended with October:

OCTOBER			
	1930	1929	Decr.
	\$	\$	\$
Gross .....	17,113,063	20,152,442	3,039,379
Exp. ....	10,558,970	12,842,606	2,283,635
Net .....	6,554,092	7,309,836	755,744
TEN MONTHS			
	1930	1929	Decr.
	\$	\$	\$
Gross .....	149,795,223	178,091,528	28,296,305
Exp. ....	120,629,697	142,649,902	22,020,205
Net .....	29,165,526	35,441,626	6,276,099

During the month of October, gross revenues of the Canadian National totaled \$20,887,053, as compared with \$24,731,111 in October, 1929.

Operating expenses were \$17,028,266 and net revenue \$3,858,786 as compared with the 1929 figures of \$18,740,718 and \$5,990,392.

Aggregate gross revenues to October 31 amounted to \$189,274,118 this year; operating expenses to \$165,655,167 and net revenue to \$23,618,950. There was a decrease in operating expenses during that period of \$20,232,424, as compared with last year.

## North Western Begins Container Operations

*Four types of service available under plan which became effective Dec. 3*

The Chicago & North Western, on December 3, established a container shipping service between Chicago and Milwaukee, Wis., which involves both station to station and door to door delivery. L.c.l. shipments are being handled in containers which have a total cubic capacity of 417 ft. and which are handled on gondola or container cars. Four types of service are involved. Under the door to door delivery, the railway company delivers the empty container to the shipper's place of business, picks it up when loaded and delivers the loaded container to the consignee, returning the empty container. With the station to station service, the shipper may, if he elects, at a saving in rate, call for the container at the railway station and return the same loaded, and at destination the consignee may take the container from the station to his place of business and return the empty container, or the shipper may bring his goods to the railway platform and load them in the container and the consignee may unload the container at the inbound platform and take the shipment to his place of business. Under the third type, the railway delivers the empty container to the shipper and picks up the loaded container, and the consignee performs his own delivery service at the other end, either by unloading the container at the freight station or taking the container to his place of business for unloading, returning the empty container to the freight station. With the fourth type, the shipper may load his goods into the container at the railway station or may pick up the empty container at the outbound platform and return it loaded to the platform. The railway will deliver the loaded container to the consignee and pick up the empty container.

The advantages of this service, according to the railway, are the elimination of packing and classification requirements, the reduction in shipping costs, the elimination of the intermediate handling of goods, the use of a bill of lading which extends from store door to store door, the insurance of prompt service, a more flexible service for the l.c.l. shipper, the reduction of the possibility of damage, the protection from inclement weather, elimination of possibilities of pilferage and practicability.

### Big Four Abandonment

The Cleveland, Cincinnati, Chicago & St. Louis abandoned the operation of that part of its Michigan division between Goshen, Ind., and Niles, Mich., on December 2. Trains between Benton Harbor, Mich., and Goshen are now operated over the New York Central between Goshen and South Bend and over the M. C. from South Bend to Niles.

## Edgar E. Clark Dies in California on Dec. 1

*Former chairman of I.C.C. succumbs following long illness*

Edgar E. Clark, for many years chairman of the Interstate Commerce Commission and a leader of thought in matters pertaining to railway regulation, died at Monrovia, Cal., on December 1, after an illness of several months. Mr. Clark was appointed a member of the commission in 1906 when he was president of the Order of Railway Conductors and was re-appointed in 1912 by President Taft. He was again re-appointed by President Wilson. In 1921, after serving as chairman of the commission, he resigned (August 31) before the expiration of his term, to engage in private law practice at Washington as a member of the firm of Clark & La Roe.

Mr. Clark was born at Lima, N. Y., on February 18, 1856. He was in railroad service from 1874 to 1889, serving as brakeman and conductor. He was made vice-president of the Order of Railway Conductors in 1889 and the following year was elected to the position of president of that body, which office he held until his appointment to the Interstate Commerce Commission. While president of the conductors' brotherhood he served as a member of the Anthracite Coal Strike Commission in 1902.

While appointed originally as a representative of labor, Mr. Clark took an active part in the general work of the commission and for most of the 15 years that he served on the board, he was not closely identified with labor matters, these functions being assigned more often to Commissioner McChord. Mr. Clark was always interested in train operation and transportation questions, but for several years he had particular charge of tariff matters. He did much valuable work in the simplification of tariffs.

Mr. Clark was honored with the title of Doctor of Laws by Williams College (Massachusetts). While comparatively inexperienced at the time of his appointment, in many of the larger matters which have to be dealt with by the federal commission, and not enjoying any great favor either with railroads or with shippers, he applied himself assiduously to his task, and he came to be generally recognized as one of the strongest members of the Commission, notable for fairness, integrity and careful personal attention to every case that came before him. He was chairman during the difficult years of readjustment following the close of the world war, and stood strongly and intelligently for fair treatment of the railroads when other men in high government circles found it difficult to hold impartial positions.

### Anhydrous Hydrofluoric Acid

On petition of E. I. du Pont de Nemours & Company, of Pennsgrove, N. J., the Interstate Commerce Commis-

sion has authorized the transportation, under the regulations for transportation of dangerous articles, etc., of anhydrous hydrofluoric acid, when shipped in tank cars which conform to certain specifications of the American Railway Association. This order is to be in effect only one year, from December 8 until December 8, 1931, the purpose being to test the suitability of tank cars for use in carrying this new product, never before offered for transportation.

### Circuit Court Upholds Moffat Tunnel Lease

A second court, the United States Circuit Court of Appeals at Denver, Colo., has upheld the lease of the Moffat tunnel to the Denver & Salt Lake. In a decision announced on November 29 by Judge George T. McDermott the decision of the federal district court of September 20, 1929, is generally affirmed and only minor exceptions are noted to the lease, which provides for an annual tunnel rental of \$345,000.

The court said that the lease is legal and not in conflict with either the letter or spirit of the state statute creating the Moffat Tunnel commission, except in certain minor and severable provisions. The provisions which the court held should be stricken from the lease include:

The provision that subsequent leases shall never be made upon more favorable terms than are imposed upon the first lessee. The provision that the tunnel commission would not enter into a future contract for a period of less than 10 years without the written consent of the Denver & Salt Lake. The provision that if the lessee shall have expended any sums for improvements or betterments of the tunnel, or have paid any part of the principal of the tunnel bonds before the execution of a junior or subsequent lease, such junior or subsequent lessee shall pay the first one-half of the amount so expended. The provision requiring that proceeds from the use of the tunnel for power transmission, telephone and telegraph lines and other uses contemplated by the tunnel law should be applied to the credit of the lessees of the water and railroad tunnels.

The court expressed the opinion that the rental provided for was fair and reasonable, that the tunnel commission discharged its duties with fidelity, and that the commission had the power to grant to one railroad company all of the railroad use of the tunnel, as it did do. The decision rejected the contention of the plaintiffs that "the actual purpose of the law was to lend the credit of the tunnel district to the railway." Another moot point was settled when the court held that the Denver & Salt Lake did not take possession of the tunnel under the lease until February 26, 1928, the date on which the commission served written notice of the completion of the tunnel. The matter of payment for 13 days' use of the tunnel, from February 14, when freight operation began, until February 26, had been in controversy.

## Suggests Railways Offer All Forms of Transport

*Atterbury calls stockholders' attention to subsidized competition*

In a statement to stockholders mailed with their December 1 dividend checks, General W. W. Atterbury, president of the Pennsylvania, called attention to the decline in revenues caused by the inroads of subsidized competitors.

"American railroads," he said, "are among the staunchest customers of the industries, the mines and the farms; and are one of the chief instrumentalities of our social and economic structure. The railroads have, by strenuous efforts in the face of the keenest competition, succeeded in giving the best transportation service the country has ever enjoyed, but they have been unfavorably affected by governmentally subsidized methods of transportation, such as the highways and waterways; and the railroads also are feeling the effects of the relocation of industries and the increased use of private and commercial automobiles and trucks, as well as pipe lines used for the transportation of oil and other products. This is evidenced by the continued downward trend of ton and passenger mileage.

"This company desires to see the nation and its industries enjoying the best and cheapest transportation; but, future consideration of the railroads' situation should bring such legislative and regulatory relief as will enable them to profitably engage in all kinds of transportation service—by land, water or air."

He stated that the company would continue unabated its \$100,000,000 program of capital expenditures.

### Mediation Board Sees Improved Labor Relations

No disturbing situations involving carriers and employees now exist in the railroad industry and the confused and more or less strained industrial relations between the roads and their men have almost disappeared, according to the annual report of the United States Board of Mediation. Referring to conditions at the time it was organized in 1926 the board says that "each element, as a whole, entertained almost to a controlling extent doubt or suspicion, or both, in respect of the bona fides of the other." Such considerations have almost disappeared, it says, "and a general and proper appreciation of a reasonable attitude, one side in respect to the other, is in evidence—a highly desirable state of affairs. Discussions are now carried on and conclusions are reached, based on the merits of questions under consideration, in a temperate and businesslike way."

The public, the board says, has been the special beneficiary of the application of and the splendid results obtained from the railway labor law. Of the 831 cases of all characters thus far received and accepted for mediation, 615 cases

have been disposed of as follows: by mediation, 278; by arbitration, 67; by withdrawal through mediation, 190; by voluntary withdrawal, 27, by board action, 53. Of the 216 unsettled cases, 169 have been assigned for mediation and practically all have had the attention of mediators in initial conferences, etc. Some 50 additional boards of adjustment have been established during the year. During the year ended June 30, the board received 222 applications for its services in the adjustment of grievances.

### New Class Rates Deferred

The Interstate Commerce Commission has made public a notice that it has been advised by the railroads that they will be unable to make effective before April 1 the rates prescribed by the commission in the eastern and western trunk line class rate cases. The commission issued no order in these cases fixing the date but had expressed the hope that the roads might be able to prepare the necessary tariffs by November 1.

### Funeral of Mr. Markham

Trains, shops and offices on the Illinois Central System paused for one minute at 10 o'clock on the morning of November 28—the hour of the funeral services for Charles H. Markham, late chairman of the board of directors of that railroad. The funeral services and interment took place at Chicago, with the presidents of the Illinois Central and the Central of Georgia and the vice-presidents of the Illinois Central as pallbearers.

### Railway Club Meetings

The New England Railroad Club will hold its next meeting at the Copley-Plaza Hotel, Boston on Tuesday evening, December 9. J. J. Drinkworth, superintendent of the New York Central at Buffalo, N. Y., will address the meeting on the subject of centralized train control. The General Railway Signal Company will also exhibit motion pictures of train operation under the centralized system.

### Motorist Pays for Damaging Train

The Minneapolis, Northfield & Southern was awarded a verdict of \$95.32 by a jury in the district court at Faribault, Minn., on November 26, in its suit against Arthur Degan whose automobile ran into a motor train at a grade crossing in that city. The driver asserted a counterclaim, seeking to recover damages for personal injuries and the value of his automobile, the total being \$4,500.

### Express Car Robbed

Two robbers succeeded in taking about \$7,000 from the express car on a train of the Southern Railway in Birmingham, Ala., on the night of November 28, without making sufficient disturbance to convey any information to passengers on the train. The men boarded the train as it left the terminal station for Selma; they subdued the messenger with pistols,

searched successfully for the money and escaped from the train as it slackened speed for a crossing, before it was out of the city limits.

### Car-Hire Settlement Order Postponed

At the request of Judge George A. Carpenter of the district court for the northern district of Illinois, in which suit to enjoin the order of the Interstate Commerce Commission prescribing rules for car-hire settlement has been filed, the commission has further postponed the effective date of its order from December 1 to December 31.

### Higher Rates on Russian Pulpwood

Notice has been filed with the Dominion Railway Commission of Canada that after December 15 the C. N. R. system will no longer grant preferential rates to Russian pulpwood shippers passing that commodity through Canada from eastern ports of entry to northern New York state. This action is taken following publicity given to the tariff which permitted the Russian product to be handled cheaper than the Canadian product and thus to undersell it in northern New York.

### N. Y. C. Files Increased Fare Tariffs

Following informal announcements issued several weeks ago, the New York Central has filed with the New York State Public Service Commission, tariffs on suburban fares to and from New York City, showing increases of about 40 per cent above rates now in effect; to go into effect on January 1.

The new tariffs have been suspended by the Public Service Commission of the state which will hold a hearing on December 12, to listen to objections.

### Reduced Rates for Virginia Apples

Fruit growers of Virginia, Maryland, and West Virginia, are estimating that \$400,000 will be taken off their freight bills annually by a reduction in freight rates which has been ordered by the Interstate Commerce Commission to go into effect February 17, next. Reductions vary from five cents to 12 cents a barrel on apples to principal cities in the central states. To Boston there is an increase from 36½ cents to 41 cents per 100 lb. but most of the changes called for by the new tariff are decreases.

### Alaska Railroad Reports Increased Deficit

The total deficit of the government's Alaska Railroad for the fiscal year ended June 30 was \$1,231,998, an increase of \$281,286, or 29.6 per cent, according to the annual report of the governor of Alaska to the Secretary of the Interior. Passenger revenues during the year decreased 5 per cent, although freight revenue, rail line, increased 1.3 per cent, and the total of all tonnage increased 1.6 per cent. The river boats were operated at

a loss of \$15,753, against a profit of \$4,119, in 1929.

### Radio Used for Emergency Dispatching

The Northern Pacific, during a recent sleet storm which grounded all wires in a small area west of Fargo, N. D., made use of radio in dispatching trains, using radio stations WDAY at Fargo and KFYZ at Bismarck. The dispatcher at Fargo telephoned the radio station in that city and the station then communicated with the radio station at Bismarck, 194 miles west, which in turn telephoned the message to the Bismarck dispatcher. Bismarck messages in the same way were communicated to Fargo. This type of service was maintained until wires were restored.

### Wage Statistics for September

The number of employees reported to the Interstate Commerce Commission by Class I railways as of the middle of the month of September was 1,485,906, according to the commission's monthly statement of wage statistics. This was a decrease of 14.98 per cent as compared with the corresponding month of last year. The total compensation for the month was \$208,691,290, a reduction of 15.85 per cent. As compared with September of last year the reduction in the number of employees includes 105,757 in the maintenance of way and structures group, 66,749 in the maintenance of equipment and stores group and 64,079 in the transportation groups.

### Retroactive Division of Earnings Approved

The Interstate Commerce Commission, upon further consideration of the contracts between the Great Northern, Northern Pacific, and Oregon-Washington providing for the continuation of the joint passenger-train service between Seattle and Tacoma, Wash., and Portland, Ore., has authorized these companies to divide the earnings derived from the joint operations between March 31 and July 12, 1930. Division 6 of the commission, in approving the continuation of the joint service for the year ending March 31, 1931, had denied the request for approval of the division of earnings (under a supplemental contract) for the short period preceding its approval. Commissioner Farrell dissented, on the ground that the commission had not the power to make an order having retroactive effect; and Commissioners McManamy, Eastman and Tate joined in the dissent.

### One Cent a Mile Coach Rate for Excursion

A round trip coach fare of \$31.67 will be effective on railroads operating from Fond du Lac, Wis., to Ft. Lauderdale, Fla., on December 26, the rate being equivalent to approximately one cent a mile. The establishing of this rate is a result of the efforts of the superintendent of schools at Fond du Lac, who proposed the operation of an excursion for school children in the vicinity of Fond du Lac.

Last summer a similar excursion from Fond du Lac to Washington on a one-cent rate drew 1,100 passengers. The excursion, which leaves Fond du Lac at 12:30 p.m. on December 26, will be operated over the Minneapolis, St. Paul & Sault Ste. Marie to Chicago, and over the Chicago & Eastern Illinois, the Louisville & Nashville, the Nashville, Chattanooga & St. Louis, the Central of Georgia, the Atlantic Coast Line and the Florida East Coast from Chicago to Ft. Lauderdale. The return trip will be over the Atlantic Coast Line to Tampa and Albany, the Central of Georgia to Atlanta, the Nashville, Chattanooga & St. Louis to Martin and the Illinois Central into Chicago. The excursion will be an all-expense tour, amounting to a total of \$65, which will include the cost of railroad fare, hotels, meals and a motor coach ride from Ft. Lauderdale to Miami and return. To make the excursion possible, the promoter must guarantee at least 300 passengers. The tour will return to Fond du Lac on January 3.

### P.R.R. Plans to Transport Private Automobiles

Private automobiles may be shipped to Florida and other Southern destinations in fast freight service from points on the Pennsylvania under a tariff which becomes effective December 15. The automobiles will be handled from more than 100 cities on the railroad.

Five passenger tickets must be presented at the time of shipment, but only three tickets will be used to cover the handling of the automobile, while the two additional tickets may be used by passengers. Automobiles may be shipped seven days in advance of the departure of the passengers, to assure their arrival at the Southern destination in ample time for the owners' use.

### Golden State Limited Chicago-Phoenix Time Reduced

The Chicago, Rock Island & Pacific and the Southern Pacific have reduced the running time of the Golden State Limited 1 hr. and 15 min. between Chicago and Phoenix, Ariz., the running time being 48 hr. 10 min., effective December 28. The train will leave Chicago at 8:45 p.m. instead of 9:30 p.m., and will arrive in Phoenix at 7:55 p.m., instead of 9:55 p.m., and Los Angeles, Cal., at 7:45 a.m. instead of 8:30 a.m., the total running time being 61 hr. as at present. Returning, the train will operate on a 61-hr. schedule from Los Angeles and 48 hr. 30 min. from Phoenix. It will leave Los Angeles at 6:30 p.m. instead of 5:45 p.m. and Phoenix at 8:00 a.m. instead of 7:00 a.m. and will arrive in Chicago at 9:30 a.m. as at present.

### Appropriations Recommended for I. C. C.

Appropriations for the work of the Interstate Commerce Commission amounting to \$11,975,593 in the fiscal year ending June 30, 1932, are recommended by the Bureau of the Budget in the annual budget message transmitted to Congress by President Hoover. This

### Cheaper Coach Service Needed

..... Grapple vigorously the problem presented by the new competition in transportation and particularly with competition on the highway. That has taken roughly one-third of the railroad passenger travel of 1920, plus all the natural growth that should have accrued since that time and has done about the same thing to railroad l.c.l. business. So far as passenger travel is concerned the proper policy is clear—cheaper and better coach service, and, if that will not bring passengers back to the rails, a reduction in coach service. So far as l.c.l. freight is concerned, the equally obvious policy is establishment by railroad carriers of a pick-up and delivery service in all large cities. Sooner or later they will be driven to it—why wait to be driven?

—Thomas F. Woodlock in the Wall Street Journal

figure represents an increase of \$1,591,090 as compared with the appropriations for the fiscal year 1931, but the message states that of this increase \$1,500,000 is due to an estimated increase of receipts in the general railroad contingent fund, which will be invested during the fiscal year 1932. It therefore does not represent an increase available for expenditure by the commission. There are also increases of \$26,660 for personnel, \$8,340 for travel, and \$63,120 for promotions.

### Wood-Preservers' Association Nominees

The Nominating committee of the American Wood-Preservers' Association has submitted its recommendations for officers for the ensuing year and ballots containing these names are now being distributed to the members. The nominees are as follows: President, John S. Penney, vice-president, T. J. Moss Tie Company, St. Louis, Mo.; first vice-president, Elmer T. Howson, western editor, *Railway Age*, Chicago; second vice-president, R. S. Belcher, manager treating plants, A. T. & S. F., Topeka, Kan.; secretary-treasurer, H. L. Dawson, Washington, D. C.; members of Executive committee: F. C. Krell, forester, Pennsylvania System, Philadelphia, Pa.; R. S. Manley, president, Texas Creosoting Company, Orange, Tex.

### Chicago-Florida Time Reduced

The schedule of the Southland which is operated by the Pennsylvania, the Louisville & Nashville, the Central of Georgia and the Atlantic Coast Line between Chicago and Florida was speeded up on December 1 so as to reduce the running time from Chicago to St. Petersburg 25 min. and from Chicago to Sarasota, 45 min. Through service from Chicago to the east coast of Florida will be provided on January 1 on the Flamingo, which is operated by

these railroads. Cars for this train will leave Chicago at 9:40 a. m. and will arrive in Jacksonville at 8:30 p. m. the next evening and Miami at 7:30 a. m. the second morning. Northbound cars will leave Miami at 10:20 p. m. and Jacksonville at 8:30 a. m. the next morning, and will arrive in Chicago at 4:40 p. m. the second evening.

### Revision of Grain Rates Big Job

Supplementing their petition of November 1 to the Interstate Commerce Commission for a further postponement from January 1 to April 1 of the executive date of the commission's order prescribing a general revision of western grain rates, on the ground that it is physically impossible to prepare the necessary tariffs in the time now allowed, the tariff-publishing agents of the western roads have filed a further statement that from 78 to 94 men have been in continuous session on the work since August 7, in addition to men in the offices of individual roads, and that it is impossible to obtain an accurate estimate of the time spent in individual offices. They point out that the present grain rate adjustment is provided for in 911 tariffs, containing 21,388 pages, all of which must be revised.

### Proposed Expenditures for Waterways

A statement of the amounts which it is estimated by Army engineers can be profitably expended during the fiscal year 1932 for maintenance and improvement of existing river and harbor works, based on an appropriation of \$60,000,000, has been submitted to the Secretary of War by the chief of engineers. The estimate includes \$36,252,470 for improvements and \$23,747,530 for maintenance, on projects estimated to cost \$901,020,286. The proposed expenditures for inland waterways include: Lower Mississippi system, \$442,500; middle Mississippi system, \$1,700,000; upper Mississippi system, \$3,223,685; Illinois river system, \$4,060,000; Missouri river system, \$6,300,000; Ohio river system, \$6,121,000.

### Power Supply For Railroads

In the report of the meeting of the Electrical Section, Division IV, American Railway Association, published in the *Railway Age* of November 15, 1930, there appeared the following statement:

"The data received in response to the committee's questionnaire shows that 80.31 per cent of electric energy used by railroads in the United States is produced by steam generation, 22.94 per cent by water power and 3.75 per cent by internal combustion engines." A part of the data presented was omitted and the statement should have read as follows:

"A summary of returns from the questionnaire indicates that 80.31 per cent of electric energy used by the railroads is produced by steam generation. About 73.31 per cent of the energy requirements for electric traction is produced from steam, 22.94 per cent by water

power and 3.75 per cent by internal combustion engines."

### Ripley to Discuss Consolidation

Professor William Z. Ripley of Harvard University, the author of the original plan for railroad consolidation under the Transportation Act, will discuss the present aspect of consolidation at a meeting at the Hotel Commodore, New York, on December 18.

The meeting, scheduled for 6:15 p. m., will be held in connection with a dinner, organized under the auspices of the local New York discussion group recently instituted by the National Association of Owners and Railroad and Public Utilities Securities, as a forerunner of similar groups to be formed throughout the country. Railroad men and others seriously interested in the problem are invited to attend. Further information and reservations may be secured from the chairman of the discussion group, John W. Barriger, III, International Carriers, Ltd., 120 Broadway, New York.

### New Fare Reductions in Southwest

The Texas & Pacific has applied to the Railroad Commission of Texas for permission to reduce coach rates from 3.6 cents a mile to 2 cents a mile between Fort Worth and Texarkana, following the result of the successful experiment begun November 1 when a rate of 2 cents a mile was placed in effect between Fort Worth and Big Spring. Meanwhile this road has been granted permission by the Louisiana Public Service Commission to reduce its passenger fares to 2 cents a mile on all local trains operating within the state for a period ending February 28, 1931.

The Texas-Mexican has been granted permission by the Texas commission to reduce its passenger rates from 3.6 cents a mile to 2 cents a mile between all points on its line between Laredo, Tex., and Corpus Christi.

### Bus Bill Taken Up in Senate

Debate on the bill for the regulation of motor bus transportation was begun in the Senate on December 2, almost at the opening of the session. The bill is the unfinished business of the Senate, several amendments having been adopted near the close of the last session in the bill as reported by the committee on interstate commerce, which rewrote the bill after it had been passed by the House. One of the principal points of the discussion on December 2 was the question as to its effect on the operation of motor vehicles by railways, as the Senate had adopted an amendment prohibiting the acquisition of a motor bus line by a railroad. Senator Couzens, chairman of the committee, precipitated the discussion by saying that what the committee had attempted to do was to prevent the railroads from buying up bus lines and "creating a monopoly in transportation," but that there was nothing in the language to prevent a railroad from starting or operating its own

bus line. Senator Glenn, of Illinois, whose effort to strike out that amendment had been defeated at the last session, pointed out that the bill would prohibit the buying of stock of a bus company by a railroad and Senator Couzens assented, but he said there was nothing in the bill to prevent a railroad itself from engaging in that sort of business. Nothing was said about the charter power of a railroad to operate a bus line. Senator Couzens told the Senate that there was no request for legislation controlling interstate traffic by truck.

### Exhibit Memorializes Life of Elmer A. Sperry

A special exhibit memorializing the life and scientific achievements of the late Elmer A. Sperry, inventor of the gyro-compass and more than 350 other significant inventions, opened December 1 for one month's showing at the Museums of the Peaceful Arts, 220 East Forty-second Street, New York City.

The exhibit includes complete operating gyro-pilot equipment—the "Metal Mike" of the seas that unflinching keeps a vessel to its true course, one of Mr. Sperry's later inventions. An operating model of the ship stabilizer, which overcomes rolling, pitching and other discomforts of navigation, is also on display. At the entrance to the exhibit there is a 60-inch aircraft searchlight, another of Mr. Sperry's inventions. Other photographs, models and actual apparatus portray Mr. Sperry's early experiments with water wheels, hydraulic turbines, the dynamo, the electric arc, and on through the period of his invention of storage batteries, electrical locomotives, electric automobiles, electric trolleys, Diesel engines, "rail-detector," various mining mechanisms and metallurgical devices, submarine alarm, gun-fire control devices and others of the outstanding Sperry inventions.

"In industry generally, one way of meeting competition is to swallow it. But this expedient is denied the railroads which in many cases are not permitted by law to absorb these newer agencies into a complete transportation system, while railroads are seldom permitted to abandon unprofitable mileage. Railroad charges are subject to public regulation. The tendency of public regulation is to starve the railroads and to make the path to dividends a difficult one to follow. Public utilities generally, endowed through their franchises with some of the powers of government itself, must as a rule pay dearly for their privileges. If the railroads are to continue to give effective service it is essential that the machinery of transportation should be well oiled with judicious charges and an attractive return upon capital investment."

—National Industrial Conference Board

A section of the exhibit is devoted to the presentation of the various honors which Mr. Sperry received during his 48 active years as an inventor, consisting of diplomas, medals and other honors awarded to him by his own and foreign countries as well as by various engineering and scientific societies. These include the John Fritz Medal, the Holley Medal, the Order of the Rising Sun (Japan), a diploma bearing the signature of the Emperor of Japan, and numerous other decorations, citations and diplomas.

The exhibit is open to the public without charge daily, except Sundays and holidays, from 10 a. m. to 5 p. m.

### Progress on Hudson Bay Railway Terminal

So rapidly has work been done during the present year on the Hudson Bay Railway terminal and harbor at Fort Churchill that even now a vessel drawing 30 feet of water could dock there at high tide and, were the elevator completed, load and depart again on the next high tide. Since the actual construction work began last year one-half of the dredging has been completed, or 1,000,000 cubic yards; one-half of the main dock, which is to be 1,800 feet in length, has been built; and the foundation of the 2,500,000-bushel elevator has been finished up to the bottom of the bins.

Next season it is proposed to finish the dredging of another million cubic yards, complete the elevator and the large power house and conveyor system. The final work on the main dock cannot be completed until 1932 as it will have to await a complete settling of the filled land, but it is confidently expected that by September 15 of next year the government will be able to make a full test of the grain loading facilities and also the navigation conditions. There will be at least a month in which to load vessels.

### S. P. Expedites Freight Service Out of Dallas

The Southern Pacific has made outstanding reductions in the freight service from Dallas, Tex., to points within a radius of 586 miles, the reduction amounting to as much as 12 hr. in some instances. The time from Dallas to Houston, 265 miles, has been cut from 15 hr. to 12 hr. 15 min., cars now leaving Dallas at 7:30 p. m. instead of 9:30 p. m. and arriving in Houston at 7:45 a. m. instead of 12:30 p. m. the next day. The time from Dallas to San Antonio has been reduced approximately 12 hr., cars now leaving Dallas at 7:30 p. m. and arriving in San Antonio at 12:45 noon, a total of 17 hr. 15 min., whereas formerly the cars did not arrive until late at night. Cars from Dallas to Corpus Christi, 425 miles, now make the run in 36 hr. 5 min. in contrast to a previous schedule of 47 hr. 35 min. Cars leave at 7:30 p. m. instead of 8:00 a. m. and arrive at 7:35 a. m. as previously. The service from Dallas to Brownsville, 586 miles, is now performed in 34 hr. in

contrast to the previous schedule of 45 hr. 30 min. Cars now leave Dallas at 7:30 p. m. instead of 8:00 a. m. and arrive in Brownsville at 5:30 a. m. as before.

### Southwestern Roads Plan to Meet Truck Competition

The southwestern lines have petitioned the Interstate Commerce Commission for such relief from the commission's order in Part 3 of its rate structure investigation, prescribing rates on cotton, effective January 10, as may be necessary to enable them to establish and maintain from southwestern points of origin to Texas ports reduced rates to meet the competition of motor trucks. As the orders stand the roads would be precluded from reducing rates, they say, because of provisions prescribing relations and groups.

Improvements in the highways, according to the petition, have enabled the truck lines to accentuate their operations and, loading 25 to 30 bales per truck, they have transported cotton for constantly increasing distances. To-day regular truck service is maintained for hauls of 300 miles and more to Texas ports and the roads say that failure to meet the truck rates will result in complete loss of the tonnage.

### Improved Railway Service Recognized

Improvements in the quality of railway service are noted in the annual report of Secretary Lamont, of the Department of Commerce, in his annual report, made public this week, which includes the following:

Reflecting continued increased efficiency the traffic of 1929-30 was handled with fewer employees, fewer freight cars, and fewer locomotives than in any other year of similar volume of business. The use of larger cars and more powerful locomotives has tended gradually to raise the average amount of freight carried per person employed on the railroads. In the last fiscal year the average weight of revenue ton freight hauled per train was 799 tons, fractionally less than in 1928-29, but comparing with 776 tons in 1927-28 and 656 in 1921-22.

Although the proportion of total revenue from passenger service has been decreasing for some time, the railways are continually adding improvements in facilities and comfort. Economies in the conduct of passenger service have also been introduced without lowering the quality of the service.

In fact, the quality of service furnished by the railways, as well as other public carriers, has continued to improve and is now better than at any other time in the history of the country. Car shortages have become rare occurrences. At present it takes only from one-half to two-thirds as long to move goods a given distance as it did a decade ago. The increasing efficiency with which traffic is handled has enabled producers to make quicker deliveries and distributors are able to carry smaller stocks and to turn over their capital more quickly.

The national forecasts of the Regional Advisory Boards have served admirably in indicating business trends and have proved of great value to industry in determining future activities.

The railroads have performed useful service in relieving drought conditions during the past summer by issuing low-rate tariffs for animal feed and livestock moving in and out of the drought-stricken areas, and for rail carriage of water where needed.

### Canada Air Rates Reduced

Effective last week, Canadian Airways, Ltd., introduced a new rate schedule for their eastern lines, which indicates that passengers will be carried for slightly more than five cents a mile on all routes out of Montreal. The rate between Saint John and Moncton, N. B., works out at six cents a mile. These have been calculated on the ruling railway rates, plus the normal Pullman charge between the stipulated points and a surcharge of twenty per cent to defray incidental expenses, such as telegraph tolls on place reservations.

These fares are lower than any prevailing in the United States, where the average on all routes is estimated at 10½ cents a mile.

In making these reductions, the company intimated that passengers will be carried at the present time only in regular mail planes, as it is impossible to operate two or more machines at such low rates without the ordinary air mail subvention. The Canadian railways have a large financial interest in the air line.

### N. & W. Efficiency Meeting on Radio

The Norfolk & Western at its annual efficiency meeting on December 5 and 6 used the radio and the telephone as a means of bringing together its 26,000 employees on various parts of the system. The meeting, the eleventh annual one to be held by the railway, centered in Roanoke, Va., its purpose being the discussion of ways and means to maintain efficient railway service.

This hook-up of radio and telephone services spread out from Roanoke City Auditorium on December 5 in a broadcast lasting from 7:45 p. m. to 9:30. During this time the company's telephone lines, from Norfolk, Va., to Portsmouth, Ohio, were connected with the auditorium and radio station WDBJ at Roanoke. Microphones, loudspeakers, and amplifiers were installed at Norfolk, Va., Bluefield, W. Va., Williamson, W. Va., and Portsmouth, Ohio, and radio receiving sets at Winston-Salem, N. C., Hagerstown, Md., Bristol, Va.-Tenn., Lynchburg, Va., Petersburg, Christiansburg, East Radford, Pulaski, Shenandoah, Norton, Iaeger, W. Va., Kenova, Keystone, Wilcoe, Columbus, Ohio and Cincinnati. The main address was made at Roanoke by W. J. Jenks, vice-president in charge of operation. Other executive officers of the company gathered at Norfolk, Bluefield, Williamson, and Portsmouth and addressed local meet-

ings at these points in person, their addresses being broadcast over the entire radio-telephone network.

The dates of all local efficiency meetings along the railway were changed to coincide with the date of the system meeting so that employees could participate in the system meeting by means of the hook-up. In addition to the night session, morning and afternoon sessions were held on December 5 and 6 in the ballroom of Hotel Roanoke. The day meetings were attended by more than 200 employees chosen from various departments and representing all points on the line.

### Gasoline Pipe Line Competition Discounted

The railroads of the country will not lose their present gasoline traffic nor will tank car leasing companies suffer any serious setback in the volume of their business on account of proposed pipe lines, according to a recent statement made by Ernest L. Nye, president of the National Steel Car Lines Company and a member of the banking firm of Freeman & Company.

The statement follows in part:

"The hue and cry regarding tank car movement now accompanying the idea of gasoline pipe lines also attended the inauguration of the crude oil pipe lines years ago, and at that time columns were written to prove that tank cars would certainly be supplanted in crude oil traffic. The record of the Union Tank Car Company, or of its predecessor corporations are given to show how warped these earlier predictions were. The Union Tank Car Company has always been the largest and most important operator of tank cars in the United States. In 1910, Union Tank Car had in operation 8,200 cars. Ten years later, in 1920, its fleet consisted of 20,584 cars and in January, 1930, this number had grown to 34,130 cars. Here was a company of Standard Oil affiliation, whose management was in a position to have available the very best judgment regarding future conditions affecting tank car movement, and during the time of the greatest expansion of crude oil pipe lines, its fleet of tank cars increased over 100 per cent. The railroads themselves, according to the *Railway Age*, from 1909 until 1929, while losing a substantial portion of the annual increase in crude oil movement, increased the actual volume of their crude oil movement due to the increased annual consumption, and in 1930, the number of railroad-owned tank cars exceeded the number of railroad-owned tank cars in 1920, despite the tremendous growth of the private lease line companies meanwhile and in the face of pipe line competition.

"A sane survey of facts discloses that during the past five years the average annual increase in the national consumption of gasoline has been approximately 100,000 barrels daily. This is about the total daily capacity of all the gasoline pipe lines under construction and under projection. This still leaves the railroads with their present amount of busi-

ness assuming that these new gasoline pipe lines operate to capacity. Whether other important gasoline pipe lines will be projected in the near future is highly debatable because such construction involves, in addition to the technical problems of the operation itself, questions relating to the relocating of refineries and other major considerations. For example, it must be remembered that most of the leading oil companies now have tremendous investments in refineries located at such central points as Chicago and other large cities served by established crude oil lines. If gasoline is to be refined at, and shipped from, refineries to be relocated close to the actual production areas and piped into the large cities where refineries are now established, not only is the great cost of such relocation a consideration, but there is the long haul on fuel oil, naptha, kerosene and other products available to the railroads from the relocated refineries.

"That it will be a long while, if ever, before tank cars are supplanted in the petroleum industry and that the movement of these cars will continue to be a source of profitable revenue to the railroads for many years is the consensus of opinion of leading executives not only of the railroads but of the very petroleum companies now interested in gasoline pipe line construction."

#### Mechanical Division Letter Ballot Returns

The recommendations of several of the committees reporting at the Mechanical Division convention at Atlantic City, N. J., June 18 to 25, 1930, inclusive, were ordered submitted to a letter ballot of the members. The returns, recently tabulated, show the two-thirds majority requisite for approval of all of the recommendations advanced. The propositions to amend the standard and recommended practice of the division are accordingly approved, effective March 1, 1931; also the propositions to amend the loading rules of the division are approved, effective January 1, 1931.

**Arbitration Committee.**—The recommendation of this committee was confined to a single proposition to adopt as recommended practice the revised supplementary regulations governing inspection and repairs of foreign cars and billing for these repairs.

**Brakes and Brake Equipment.**—The recommendations of this committee were divided into four propositions: To change the standard for triple valve graduating spring; to revise the recommended practice for steam and air connections for passenger cars, page 79-1926, Sec. E of the Manual; to revise the general air brake arrangement and details, page 13, Sec. E of the Manual, to cover extra heavy pipe; to revise the drawing for brake head, page 84-1929, Sec. E of the Manual.

**Car Construction.**—The recommendations of this committee were divided into four propositions: To revise the specifications for journal boxes; to adopt as rec-

ommended practice definitions and designating letters for pulp wood cars; to revise drawings for journal bearing wedges and gages; to adopt alternate lumber sections as recommended practice.

**Couplers and Draft Gears.**—The recommendations of this committee were divided into two propositions: To adopt as recommended practice specifications for separate followers; to adopt as recommended practice the Type E coupler. (Plates A. B. C. D and E.)

**Electric Rolling Stock.**—The recommendation of this committee was confined to a single proposition to adopt as recommended practice a standard method of rating electric locomotives.

**Loading Rules.**—The recommendations of this committee were divided into 28 propositions in the letter ballot and three propositions in the supplementary letter ballot to modify the A. R. A. loading rules.

**Locomotive and Car Lighting.**—The recommendations of this committee were divided into three propositions: To revise the recommended practice schedule of incandescent lamps; to revise the recommended practice specification for axle generator equipment; to restore to the Manual the recommended practice for locomotive lighting.

**Locomotive Design and Construction.**—The recommendations of this committee were divided into four propositions: To adopt as recommended practice the standardization of pipe unions of the nut and nipple type; to modify recommended practice formula for computing the tractive effort of the locomotive booster; to adopt as recommended practice, brackets and other means of support for air pumps, water pumps, power reverse gears, feed-water heaters, etc., on locomotives; to adopt as recommended practice, pressures for applying steam chest and cylinder bushings.

**Lubrication of Cars and Locomotives.**—The recommendations of this committee were divided into three propositions: To revise the specifications for renovated oil; to adopt as standard practice the method for analysis of reclaimed waste; to revise specifications for new waste for journal box packing.

**Specifications and Tests for Materials.**—The recommendations of this committee were divided into five propositions: To revise the specifications for helical springs; to revise the specifications for chain; to revise the specifications for axle light belting; to revise the specifications for refined wrought iron bars; to adopt as recommended practice, specifications for unions and combination union fittings, black and galvanized, for 300 lb. pressure.

**Tank Cars.**—The recommendations of this committee were divided into 17 propositions to adopt revisions in certain details of the A. R. A. tank car specifications.

**Wheels.**—The recommendation of this committee was confined to one proposition to adopt as recommended practice symbols for wheel defects.

## Ten Months' Net Income Reduced by 31 Per Cent

(Continued from page 1241)

as compared with \$571,540,369 or 5.77 per cent, last year. Operating revenues in the Eastern district for the ten months totaled \$2,274,620,308, a decrease of 15.4 per cent below those of the corresponding period the year before, while operating expenses totaled \$1,680,856,422, a decrease of 11.7 per cent. Class I railroads in the Eastern district for October had a net of \$47,972,178, compared with \$70,791,334 in October, 1929.

Class I railroads in the Southern district for ten months had a net of \$73,522,269, at the rate of 2.67 per cent. For the same period in 1929, their net amounted to \$114,348,401, at the rate of 4.20 per cent. Operating revenues amounted to \$546,740,512, a decrease of 15.9 per cent under those of the same period the year before, while operating expenses totaled \$429,244,211, a decrease of 12 per cent. For October the net was \$10,167,652 compared with \$13,348,097 in October, 1929.

Class I railroads in the Western district for the ten months had a net of \$302,894,248, at the rate of 3.33 per cent compared with \$430,177,920, at the rate of 4.84 per cent last year. Operating revenues in the Western district for the ten months period amounted to \$1,744,876,979, a decrease of 15 per cent under those of the same period last year, while operating expenses totaled \$1,268,773,747, a decrease of 11.5 per cent. For October the net of the Class I railroads in the Western district amounted to \$54,111,172. The net in October, 1929, totaled \$69,062,101.

CLASS I RAILROADS—UNITED STATES			
	Month of October		
	1930	1929	
Total operating revenues .....	\$ 483,454,738	\$ 609,358,153	
Total operating expenses .....	326,285,795	404,943,119	
Taxes .....	32,349,586	39,743,305	
Net railway operating income .....	112,251,002	153,201,532	
Operating ratio—per cent .....	67.49	66.45	
Rate of return on property investment .....	3.31%	4.62%	
Ten months ended October 31			
Total operating revenues .....	\$4,566,237,799	\$5,391,134,117	
Total operating expenses .....	3,378,874,380	3,824,406,632	
Taxes .....	308,490,898	348,701,019	
Net railway operating income .....	772,440,930	1,116,066,690	
Operating ratio—per cent .....	74.00	70.94	
Rate of return on property investment .....	3.51%	5.19%	

#### Newsprint Hearings End

Adjournment "sine die" was taken by the Board of Railway Commissioners at Ottawa last week in the hearing on the protests of certain manufacturers and users of newsprint against the schedule of increased rates published by the Canadian railways some time ago. The increase, which was suspended by order of the board pending hearing of all parties affected by it, would have raised the existing rates on newsprint by about 27½ per cent in traffic originating in Canada destined for United States points.

The case has continued for some time, and inasmuch as it is international in the

application of the rates a similar hearing has been conducted by the Interstate Commerce Commission at Washington. This body concluded its hearings last May, but judgment has not yet been rendered.

It will likely take some months before the Board of Railway Commissioners digests the mass of evidence that has been submitted to it, consequently judgment is not expected until early next summer.

## Meetings & Conventions

The following list gives names of secretaries, date of next or regular meetings and places of meetings.

- AIR BRAKE ASSOCIATION.**—T. L. Burton, Room 5605, Grand Central Terminal Building, New York City. Next meeting, May 19-22, 1931, Royal York Hotel, Toronto, Ont. Exhibit by Air Brake Appliance Association.
- AIR BRAKE APPLIANCE ASSOCIATION.**—Fred W. Venton, Crane Company, 836 So. Michigan Blvd., Chicago. Meets with Air Brake Association.
- AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.**—J. D. Gowin, 112 W. Adams St., Chicago.
- AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.**—E. L. Duncan, 332 S. Michigan Ave., Chicago.
- AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.**—W. C. Hope, C. R. R. of N. J. 143 Liberty St., New York.
- AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.**—A. G. Peck, Acting Secretary, 811 W. 35th Street, Kansas City, Mo. Next meeting June 16-19, 1931, St. Louis, Mo.
- AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.**—J. H. Hawley (B. R. & P. Ry.) E. Salamanca, N. Y. Next convention December 8-10, 1930, New Orleans, La.
- AMERICAN ELECTRIC RAILWAY ASSOCIATION.**—Guy C. Hecker, 292 Madison Ave., New York. Next convention, September 26 October 2, 1931, Atlantic City, N. J.
- AMERICAN RAILWAY ASSOCIATION.**—H. J. Forster, 30 Vesey St., New York, N. Y.  
Division I.—Operating.—J. C. Caviston, 30 Vesey St., New York, N. Y.  
Freight Station Section.—R. O. Wells, Freight Agent, Illinois Central Railroad, Chicago.  
Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York.  
Protective Section.—J. C. Caviston, 30 Vesey St., New York.  
Safety Section.—J. C. Caviston, 30 Vesey St., New York.  
Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York. Next convention, September 22-24 1931, Chicago.  
Division II.—Transportation.—G. W. Covert, 59 East Van Buren St., Chicago.  
Division III.—Traffic.—J. Gottschalk, 143 Liberty St., New York.  
Division IV.—Engineering.—E. H. Fritch, 59 East Van Buren St., Chicago. Next meeting, March 10-12, 1931, Palmer House, Chicago. Exhibit by National Railway Appliances Association.  
Construction and Maintenance Section.—E. H. Fritch. Next meeting, March 10-12, 1931, Palmer House, Chicago.  
Electrical Section.—E. H. Fritch.  
Signal Section.—R. H. C. Balliet, 30 Vesey St., New York.  
Division V.—Mechanical.—V. R. Hawthorne, 59 East Van Buren St., Chicago. Next meeting, June, 1931.  
Equipment Painting Section.—V. R. Hawthorne, 59 East Van Buren St., Chicago.  
Division VI.—Purchases and Stores.—W. J. Farrell, 30 Vesey St., New York, N. Y.  
Division VII.—Freight Claims.—Lewis Pilcher, 59 East Van Buren St., Chicago.  
Division VIII.—Motor Transport.—George M. Campbell, 30 Vesey St., New York, N. Y.  
Car Service Division.—C. A. Buch, 17th and H. Sts., N. W., Washington, D. C.
- AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.**—C. A. Lichty, C. & N. W. Ry., 319 N. Waller Ave., Chicago. Next convention, October 20-22, 1931, Toronto, Ont. Exhibit by Bridge and Building Supply Men's Association.
- AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.**—A. W. Large, Gen. Agri. Agt., C. R. I. & P. Ry., Chicago, Ill. Annual meeting, 1931 Philadelphia, Pa.
- AMERICAN RAILWAY ENGINEERING ASSOCIATION.**—Works in co-operation with the American Railway Association, Division IV.—E. H. Fritch, 59 East Van Buren St., Chicago.
- Next meeting, March 10-12, 1931, Palmer House, Chicago. Exhibit by National Railway Appliances Association.
- AMERICAN RAILWAY MAGAZINE EDITORS ASSOCIATION.**—Miss E. Phillips, N. Y., N. H. & H. Magazine, New Haven, Conn. Next meeting, June, 1931, Philadelphia, Pa.
- AMERICAN RAILWAY TOOL FOREMEN'S ASSOCIATION.**—G. G. Macina, C., M., St. P. & P. R. R., 11402 Calumet Ave., Chicago. Next convention, September, 1931. Exhibit by Supply Association of the American Railway Tool Foremen's Association.—F. E. Caswell, Union Twist Drill Co., 11 S. Clinton St., Chicago.
- AMERICAN SHORT LINE RAILROAD ASSOCIATION.**—R. E. Schindler, Assistant Secretary, Union Trust Bldg., Washington, D. C.
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS.**—Calvin W. Rice, 29 W. 39th St., New York. Railroad Division, Paul D. Mallay, Johns-Manville Corp., 292 Madison Ave., New York.
- AMERICAN WOOD PRESERVERS' ASSOCIATION.**—H. L. Dawson, 1104 Chandler Building, Washington, D. C. Next meeting, January 27-29, 1931, Philadelphia, Pa.
- ASSOCIATION OF RAILWAY CLAIM AGENTS.**—H. D. Morris, District Claim Agent, Northern Pacific Ry., St. Paul, Minn. Annual convention, June 17-19, 1931, Royal York Hotel, Toronto, Ont.
- ASSOCIATION OF RAILWAY ELECTRICAL ENGINEERS.**—Jos. A. Andreucetti, C. & N. W., Room 411, C. & N. W. Station, Chicago. Exhibit by Railway Electrical Supply Manufacturers' Association.
- ASSOCIATION OF RAILWAY EXECUTIVES.**—Stanley J. Strong, Transportation Building, Washington, D. C.
- ASSOCIATION OF RAILWAY SUPPLY MEN.**—J. F. Gettrust, Ashton Valve Company, 565 Washington Blvd., Chicago. Meets with International Railway General Foremen's Association.
- BOILERMAKERS' SUPPLY MEN'S ASSOCIATION.**—Frank C. Hasse, Oxweld R. R. Service Company, 230 N. Michigan Ave., Chicago. Meets with Master Boiler Makers' Association.
- BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.**—S. A. Baber, High Grade Manufacturing Co., 10418 St. Clair Ave., Cleveland, Ohio. Meets with American Railway Bridge and Building Association.
- CANADIAN RAILWAY CLUB.**—C. R. Crook, 208 Wilson Ave., N. D. G. Montreal, Que. Regular meetings, 2nd Monday in each month, except June, July and August, Windsor Hotel, Montreal, Que.
- CAR DEPARTMENT OFFICERS' ASSOCIATION.**—A. S. Sternberg, M. C. B. Belt Ry. of Chicago, 7926 South Morgan Street, Chicago. Exhibit by Supply Men's Association.
- CAR FOREMEN'S ASSOCIATION OF CHICAGO.**—G. K. Oliver, Chicago & Alton, 3001 W. 39th Place, Chicago. Regular meetings, 2nd Monday in month, except June, July and August, Great Northern Hotel, Chicago.
- CAR FOREMEN'S ASSOCIATION OF LOS ANGELES.**—J. W. Krause, Room 299, 610 So. Main St., Los Angeles, Cal. Regular meetings, second Monday of each month, except July, August and September, Room 299, 610 So. Main St., Los Angeles.
- CAR FOREMEN'S ASSOCIATION OF ST. LOUIS, MO.**—F. G. Wiegman, 720 N. 23rd St., East St. Louis, Ill. Meetings first Tuesday of each month, except July and August, American Hotel Annex, 6th and Market Sts., St. Louis, Mo.
- CENTRAL RAILWAY CLUB OF BUFFALO.**—T. J. O'Donnell, 1004 Prudential Building, Buffalo, N. Y. Regular meetings, 2nd Thursday each month, except June, July, August, Hotel Statler, Buffalo, N. Y.
- CINCINNATI RAILWAY CLUB.**—D. R. Boyd, 453 E. 6th St., Cincinnati, Ohio. Meetings 2nd Tuesday in February, May, September and November.
- CLEVELAND RAILWAY CLUB.**—F. L. Frericks, 14416 Alder Ave., Cleveland, Ohio. Meetings, first Monday each month, except July, August, September, Hotel Hollenden, Cleveland.
- INTERNATIONAL RAILROAD MASTER BLACKSMITHS' ASSOCIATION.**—W. J. Mayer, Michigan Central R. R., Detroit, Mich. Next convention, August 18-20, 1931, Cleveland, Ohio. Exhibit of International Railroad Master Blacksmiths' Supply Men's Association.
- INTERNATIONAL RAILROAD MASTER BLACKSMITHS' SUPPLY MEN'S ASSOCIATION.**—J. H. Jones, Crucible Steel Company of America, 650 Washington Blvd., Chicago. Meets with International Railroad Master Blacksmiths' Association.
- INTERNATIONAL RAILWAY FUEL ASSOCIATION.**—C. T. Winkless, Room 700 La Salle Street Station, Chicago. Exhibit by International Railway Supply Men's Association.
- INTERNATIONAL RAILWAY GENERAL FOREMEN'S ASSOCIATION.**—Wm. Hall, 1061 W. Wabasha St. Winona, Minn. Next convention, March 25-28, 1931, Hotel Sherman, Chicago.
- INTERNATIONAL RAILWAY SUPPLY MEN'S ASSOCIATION.**—C. M. Huffman, Dearborn Chemical Co., 310 So. Michigan Ave., Chicago. Meets with International Railway Fuel Association.
- MASTER BOILER MAKERS ASSOCIATION.**—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y. Next convention, May 12-15, 1931, Hotel Sherman, Chicago. Exhibit by Boiler Makers' Supply Men's Association.
- MASTER CAR BUILDERS' AND SUPERVISORS' ASSOCIATION.**—(See Car Department Officers' Association.)
- NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.**—James B. Walker, 270 Madison Ave., New York. Annual convention, 1931, Richmond, Va.
- NATIONAL ASSOCIATION OF RAILROAD TIE PRODUCERS.**—Roy M. Edmonds, 1252 Syndicate Trust Bldg., St. Louis, Mo. Annual convention, May 5-7, 1931, West Baden Springs Hotel, West Baden, Ind.
- NATIONAL RAILWAY APPLIANCE ASSOCIATION.**—C. W. Kelly, 1014 South Michigan Ave., Chicago. Exhibit at A. R. E. A. convention.
- NATIONAL SAFETY COUNCIL.**—Steam Railroad Section: J. L. Walsh, Supt. Safety, M.-K.-T. R. R., Dallas, Tex.
- NEW ENGLAND RAILROAD CLUB.**—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, 2nd Tuesday in month, excepting June, July, August and September, Copley Plaza Hotel, Boston, Mass.
- NEW YORK RAILROAD CLUB.**—D. I. McKay, 26 Cortlandt St., New York. Regular meetings, 3rd Friday in month, except June, July and August, 29 W. 39th St., New York City.
- PACIFIC RAILWAY CLUB.**—W. S. Wollner, P. O. Box 3275, San Francisco, Cal. Regular meetings 2nd Thursday in month, alternately in San Francisco and Oakland.
- RAILWAY ACCOUNTING OFFICERS' ASSOCIATION.**—E. R. Woodson, 1124 Woodward Building, Washington, D. C. Annual convention, 1931, Mexico City, Mex.
- RAILWAY BUSINESS ASSOCIATION.**—Frank W. Noxon, 1112 Shoreham Building, Washington, D. C.
- RAILWAY CLUB OF PITTSBURGH.**—J. D. Conway, 1841 Oliver Building, Pittsburgh, Pa. Regular meeting, 4th Thursday in each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.
- RAILWAY ELECTRICAL SUPPLY MANUFACTURERS' ASSOCIATION.**—Edward Wray, 9 S. Clinton St., Chicago. Meets with Association of Railway Electrical Engineers.
- RAILWAY EQUIPMENT MANUFACTURERS' ASSOCIATION.**—F. W. Venton, Crane Co., 836 S. Michigan Ave., Chicago. Meets with Traveling Engineers' Association.
- RAILWAY FIRE PROTECTION ASSOCIATION.**—R. R. Hackett, Baltimore & Ohio R. R., Baltimore, Md.
- RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.**—J. D. Conway, 1841 Oliver Bldg., Pittsburgh, Pa. Meets with Mechanical Division, Purchases and Store Division and Motor Transport Division, American Railway Association.
- RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.**—G. A. Nelson, 30 Church St., New York. Meets with Telegraph and Telephone Section of A. R. A. Division 1.
- RAILWAY TREASURY OFFICERS' ASSOCIATION.**—L. W. Cox, 1217 Commercial Trust Bldg., Philadelphia, Pa.
- ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.**—T. F. Donahoe, Gen. Supv. Road, Baltimore & Ohio, Pittsburgh, Pa. Next convention, September 22-24, 1931, Hotel Stevens, Chicago. Exhibit by Track Supply Association.
- ST. LOUIS RAILWAY CLUB.**—B. W. Frauenthal, Drawer 24, M. P. O. St. Louis, Mo. Regular meetings, 2nd Friday in month, except June, July and August.
- SIGNAL APPLIANCE ASSOCIATION.**—F. W. Edmonds, West Nyack (Rockland Co.), N. Y. Meets with A. R. A. Signal Section.
- SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.**—A. T. Miller, P. O. Box 1205, Atlanta, Ga. Regular meetings, 3rd Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta.
- SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.**—R. G. Parks, A. B. & C. Ry., Atlanta, Ga. Annual meeting, January 15, 1931, Chattanooga, Tenn.
- SUPPLY MEN'S ASSOCIATION.**—E. H. Hancock, Treasurer, Louisville Varnish Co., Louisville, Ky. Meets with A. R. A. Div. V. Equipment Painting Section.
- SUPPLY MEN'S ASSOCIATION.**—Bradley S. Johnson, W. H. Miner, Inc., 667 The Rookery Building, Chicago. Meets with Car Department Officers' Association.
- TRACK SUPPLY ASSOCIATION.**—L. C. Ryan, Oxweld Railroad Service Co., Carbon & Carbide Building, Chicago. Meets with Roadmasters' and Maintenance of Way Association.
- TRAVELING ENGINEERS' ASSOCIATION.**—W. O. Thompson, 1177 East 98th St., Cleveland, O. Next convention March 25-28, 1931, Hotel Sherman, Chicago. Exhibit by Railway Equipment Manufacturers' Association.
- WESTERN RAILWAY CLUB.**—W. J. Dickinson, 343 So. Dearborn St., Chicago. Regular meetings 3rd Monday each month, except June, July and August.

## Equipment and Supplies

### Locomotives

THE ST. LOUIS SOUTHWESTERN is inquiring for 10 locomotives of the 4-8-4 type.

THE READING has ordered 10 locomotives of the 2-10-2 type from the Baldwin Locomotive Works.

THE CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC is inquiring for 57 locomotives. Of these, 49 will be of the 4-8-4 type and eight of the 4-6-4 type.

THE CANADIAN NATIONAL is building in its Transcona, Manitoba, shops, 10 locomotives of the 2-8-0 type for freight service. These locomotives will have a tractive effort of 40,000 lb.

### Freight Cars

THE CANADIAN PACIFIC is inquiring for 35 air dump cars and 100 flat cars.

THE LEHIGH VALLEY is inquiring for 100 gondola cars of 70 tons' capacity and 55 ft. long.

THE CANADIAN NATIONAL is inquiring for 3,000 steel frame box cars of 50 tons' capacity, 500 composite gondola cars with drop ends of 70 tons' capacity, and 500 composite general service cars of 50 tons' capacity.

THE CANADIAN NATIONAL is inquiring for materials for the construction of 500 refrigerator cars, 250 of which are to be built in each of the company's own shops at London, Ontario, and Transcona, Manitoba. These cars are to be built in company shops in order to provide employment for the National system's men at these shops.

### Passenger Cars

THE CANADIAN PACIFIC is inquiring for 55 passenger cars.

### Machinery and Tools

THE GRAND TRUNK has ordered one 25-ton gantry crane from the Milwaukee Electric Crane & Hoist Corporation.

THE LEHIGH VALLEY has ordered one 20-ton low head and one 30-ton gantry crane from the Milwaukee Electric Crane & Hoist Corporation.

THE NORFOLK & WESTERN is asking for bids on 73 items of machine tools and other shop equipment devices including vertical turret lathes, boring mills, quartering machines, milling machines, drill presses, grinding machines, cut-off saws, pipe and bolt threading machines,

drop tables, shears, forging hammers, heat treating furnaces, oil burner equipment, blower and exhaust fans, portable tools, hoists, air compressors, vacuum cleaning outfit, water and oil pumps, tractors and various other machines for machine shop, forge shop, paint shop and carpenter shop.

### Iron and Steel

#### New York Central Inquiring for 170,000 Tons of Rail

The New York Central Lines are asking for bids on December 18 for 170,000 gross tons of rail, to be of 105-, 115- and 127-lb. Dudley section, open hearth steel rail, together with the necessary track accessories.

### Signaling

THE NEW YORK CENTRAL has ordered from the General Railway Signal Company an electric interlocking, 25 working levers, for installation at Sedgwick Avenue, New York City.

PHYSICAL CONNECTION between the Louisville & Nashville and the Clinchfield was completed on November 19 when the first train passed through the Hagans tunnel on the recently completed extension of the L. & N. between Chevrolet, Ky., and Hagans, Va. Freight service was begun with the passage of the first train on November 19 and passenger service on December 1. The establishment of this connection satisfies the condition upon which the Interstate Commerce Commission approved the leasing of the Clinchfield by the Louisville & Nashville in 1924.

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H. W. Atwell Studio

#### Armistice Day Ceremonies at the C. & N. W. Station, Chicago

In memory of fellow employees killed during the World War, members of the Chicago & North Western Railway Post No. 430, American Legion, placed a floral piece beside the memorial plaque in the North Western's Chicago station on November 11. The plaque bears the names of 108 former C. & N. W. employees who gave their lives during the war. A total of 5,300 of the road's employees were in service.

## Supply Trade

Paul Llewellyn, formerly president of the Interstate Iron & Steel Company, Chicago, has recently been elected to serve as the chairman of the board of the Empire Steel Corporation, Mansfield, Ohio.

John F. Nulty, formerly associated with the Baldwin Locomotive Works, has been appointed eastern district manager for the Railway Centrifix Corporation, Cleveland, Ohio, with headquarters at 340 Mt. Airy avenue, Philadelphia, Pa.

The Fort Pitt Bridge Works, Pittsburgh, Pa., and the Massillon Bridge & Structural Company, Massillon, Ohio, have been consolidated under the name of the Fort Pitt Bridge Works, with general offices in the H. W. Oliver building, Pittsburgh. The present officers of the Fort Pitt Bridge Works are to continue as the officers of the new company.

#### New Executive Members of the Railway Business Association

New executive members of the Railway Business Association for the coming year are as follows: George W. Struble, Bethlehem, Pa., vice-president of the Bethlehem Steel Company, and W. P. Murphy, Chicago, chairman of the board of the Standard Railway Equipment Company. M. G. Truman, Chicago, W. L. Conwell, New York, and George A. Martin, Cleveland, vice-presidents, who had retired after serving the usual four one-year terms, have been appointed executive members. Those reappointed upon the expiration of their three-year terms are J. E. Galvin, E. B. Leigh, David W. Pye, W. E. Sharp, S. L. Smith, Joseph B. Terbell and B. L. Winchell.

In addition to the president, and the seven vice-presidents who were listed in the *Railway Age* of November 22, page 1089, and 27 executive members, the Association on November 19 conferred permanent places in the general executive committee, with the title honorary executive member, upon A. H. Mulliken and S. P. Bush, whose retirement from the railway supply business would otherwise have made them ineligible.

### Trade Publication

UNIT HEATERS.—The latest developments in the line of Buffalo unit heaters are described in catalog No. 469 issued by the Buffalo Forge Company, Buffalo, N. Y. These heaters are designed to meet the requirements of all types of buildings, the Buffalo Highboy and Lowboy units being especially adapted for heating those buildings having a large floor area.

## Construction

**CANADIAN NATIONAL.**—Plans for this company's new passenger station at St. John, N. B., mentioned in the *Railway Age* of November 8, include the construction of a new station building and head house, to supplement the train shed, offices, and baggage, mail and express wing which have recently been completed as part of the new facilities. The cost of the contemplated new work, which also involves the elimination of a grade crossing on Mill street, is estimated at about \$500,000. The Canadian National is also taking bids on the construction of an extension, 102 ft. by 151 ft., of the train shed of its recently completed station at Halifax, N. S., and is proceeding with plans for the construction of the Brantford cut-off, also reported in the *Railway Age* of November 8. This cut-off, which will be a double-track line about six miles in length, is to run from a point 1½ miles east of Brantford, Ont., to a point the same distance west of the city, and will provide a new low grade freight line for trains between Toronto, Ont., and Sarnia. The total estimated cost of construction, including spurs, is \$1,350,000. Contracts have been awarded during the past few weeks as follows: To F. Stidwill, Cornwall, Ont., for substructure work in connection with the rebuilding of the Becancour river bridge at Becancour, Que.; to the Dibblee Construction Company, Montreal, Que., for grading of a 5.74-mile branch line from St. Eustache, Que., to Oka, and to L. Berna, W. H. Madigan and the Dominion Bridge Company, all of Montreal, for the construction of an oil stores building and a material storage yard crane runway at Point St. Charles shops, Montreal.

**CANADIAN PACIFIC (Kettle Valley).**—Bids were closed on December 1 for grading for the construction of a nine-mile branch line around Skaha lake in the South Okanagan district of British Columbia. The new line will extend from a point near Skaha, B. C., at the north end of Skaha lake through Okanagan Falls to a point at the south end of the lake, and will replace the present ferry service.

**CHICAGO, BURLINGTON & QUINCY.**—This company plans the immediate construction of an express terminal building at Canal street and Roosevelt road for the use of the Railway Express Agency. The structure will involve an expenditure of about \$600,000.

**LEHIGH VALLEY.**—The New York Public Service Commission has designated for elimination three grade crossings on this company's lines, as follows: the Main street crossing, Romulus station, Varick, N. Y., to be eliminated by depressing the highway on its present alignment and carrying it under the raised grade of the railroad, at a total cost of about \$130,600; the Lake street crossing in Burdette, N. Y., by diverting traffic to a new under-

crossing to be built about 200 ft. south of the existing crossing, at an estimated cost of \$86,400, and the Cayuga street crossing in Williamsville, Amherst, N. Y., by raising the grade of the highway on its present alignment and carrying it over the railroad tracks at a probable cost of \$125,000.

**LONG ISLAND.**—In order to take care of power requirements for 85 new multiple unit cars recently received for use in suburban service in the vicinity of New York, this company has appropriated approximately \$1,500,000 for the erection of nine new substations and the extension of transmission lines within its electrified zone. This company also plans the reconstruction, at a cost of about \$34,000, of the bridge carrying its tracks over the Butter Lane highway, Southampton, N. Y., following an order to this effect by the Public Service Commission of New York.

**MISSOURI PACIFIC.**—The Missouri Public Service Commission has authorized this railroad to construct a reinforced concrete and steel highway subway to carry Big Bend road under the railroad's tracks two miles east of Valley Park, Mo., at a cost of \$37,000.

**NEWFOUNDLAND.**—Under contract with the Horwood Lumber Company, this road is building new locomotive and machine shops on the site of its present shops at St. John's, Nfld. The new facilities include a locomotive shop 140 ft. by 60 ft., a machine shop 320 ft. by 62 ft., and a tender shop 270 ft. by 39 ft., all of steel and concrete construction.

**READING.**—This company has authorized the construction of a new station at Jenkintown, Pa., and the rebuilding of 19 bridges, 13 on the Shamokin division and six on the Perkiomen branch. Plans for this work, which involves a total expenditure of something under \$1,000,000, are now being prepared.

**READING.**—In connection with the extension of its electrification program from Langhorne, Pa., to West Trenton, N. J., announced in *Railway Age* of November 15, this company contemplates the construction of an additional substation at Yardley, Pa., and of a coach yard for the storage of electric cars at West Trenton.

**ST. LOUIS-SAN FRANCISCO.**—The Missouri Public Service Commission has authorized the construction of a reinforced concrete viaduct to carry Primary Road No. 66 over this company's tracks in St. Louis county, Mo. The project will cost about \$66,000.

**UNION PACIFIC.**—A general contract for the construction of a two-story brick, concrete, steel and stone passenger station, repair shop and garage building for the use of the Union Pacific Bus Transportation Company at Omaha, Neb., has been awarded to Peter Kiewit's Sons, Omaha.

**WABASH.**—A contract for the construction of an enginehouse at Landers yard, Chicago, has been awarded to the H. A. Peters Company, Chicago. The cost of the structure will be about \$40,000.

## Financial

**ALABAMA GREAT SOUTHERN.—Bonds.**—This company has applied to the Interstate Commerce Commission for authority to nominally issue \$500,000 of first consolidated mortgage 5 per cent bonds.

**ATCHISON, TOPEKA & SANTA FE.—New Texas Line.**—The North Plains & Santa Fe has applied to the Interstate Commerce Commission for authority to acquire and complete the operation of the line from Amarillo to a point in Dallam county, Tex., 100.5 miles, for which a certificate was issued earlier in the year to the Panhandle & Santa Fe. For reasons connected with the financing the new company proposes to take over the construction and to lease the line to the P. & S. F. It also asked authority to issue \$500,000 of capital stock to the A., T. & S. F.

**CANADIAN PACIFIC.—Equipment Trust.**—A syndicate including the Union Trust Company of Montreal, the Bankers Company of New York, Brown Brothers & Co., and the Bank of Montreal are offering \$14,250,000 of 4½ per cent series C, 1930, equipment trust certificates of this company maturing in installments from 1931 to 1945, priced to yield from 3 per cent to 4.6 per cent.

**CHICAGO, ROCK ISLAND & PACIFIC.—Control of Peoria, Hanna City & Western.**—The Interstate Commerce Commission has authorized the Peoria Terminal, a subsidiary of the Rock Island, to acquire control of the Peoria, Hanna City & Western, a road with a main line mileage of approximately 5.5.

**ERIE.—Depreciation Reserve.**—On the ground that facts submitted by the companies indicate that the Erie and its affiliated company, the New York, Susquehanna & Western, had in past years failed to adequately provide for depreciation of equipment, these companies have been authorized by the Interstate Commerce Commission, for the purpose of placing their depreciation accounting on a sound basis, to credit their depreciation reserves through account 776, "Accrued depreciation—Equipment," with the amounts of \$21,966,000.00 and \$366,000.00, respectively, and correspondingly charge profit and loss through account 620, "Delayed income debits."

**LOUISIANA & ARKANSAS.—Bonds.**—This company has applied to the Interstate Commerce Commission for authority to procure the authentication and delivery of \$607,000 of first mortgage 5 per cent bonds.

**MISSOURI PACIFIC.—Acquisition of Northeast Oklahoma.**—Plans of the Missouri Pacific Lines to acquire by purchase the Northeast Oklahoma have been announced by President L. W. Baldwin. The Missouri Pacific has entered into a contract to purchase the Northeast Oklahoma line subject to the approval of the Interstate Commerce Commission. An application for formal approval will be

filed with the Commission within a few days. The line is one that was allocated to the Missouri Pacific system by the Interstate Commerce Commission in the proposed grouping of railroads announced by the Commission last December. The consideration involved in the sale was not made public but is understood to involve a little more than \$1,350,000. The Northeast Oklahoma line has an arrangement for a physical connection with the Joplin-Pittsburg Electric line and has pending before the Interstate Commerce Commission an application to purchase fifteen miles of the Joplin-Pittsburg extending from Columbus to Cherokee Junction and through Carona to West Mineral, Kansas. The Northeast Oklahoma line extends from Columbus, Kan. to Miami, Okla., a distance of 23 miles, and serves a large portion of the tri-state mining district in southeast Kansas and northeast Oklahoma. The line has 24.8 miles of main line and 27.1 miles of yards and sidings, and owns equipment consisting of five locomotives, three of which are electric and two of which are steam, seven electric passenger cars, sixty-two freight cars and two service cars. It has been primarily an electric interurban line doing a considerable freight business.

**NEW YORK CENTRAL.—Bonds.**—The Cleveland, Cincinnati, Chicago & St. Louis has applied to the Interstate Commerce Commission for authority to issue, and the New York Central has asked authority to assume obligation and liability as lessee in respect of \$5,000,000 of refunding and improvement mortgage 4½ per cent bonds. No arrangements have been made for the sale of the bonds.

**WESTERN PACIFIC.—Debentures.**—The Interstate Commerce Commission has authorized this company to issue \$5,000,000 of 5 per cent debentures to mature in 1950. The issue is to be sold to the highest bidder. The A. C. James Co. made an offer for the issue but since the latter company and the railroad have interlocking directorates, this proposal was made in the form of a bid at par.

### Average Prices of Stocks and of Bonds

	Dec. 2	Last week	Last year
Average price of 20 representative railway stocks.	91.72	93.48	129.78
Average price of 20 representative railway bonds.	92.37	93.08	92.70

### Dividends Declared

**Boston & Maine.**—Common, \$1.00, quarterly; Prior Preferred, \$1.75, quarterly; 6 Per Cent Preferred, \$1.50, quarterly; First Preferred, Class A, \$1.25, quarterly; First Preferred, Class B, \$2.00, quarterly; First Preferred, Class C, \$1.75, quarterly; First Preferred, Class D, \$2.50, quarterly; First Preferred, Class E, \$1.12½, quarterly; all payable December 31 to holders of record December 12.

**Boston & Providence.**—\$2.12½, quarterly, payable January 2 to holders of record December 20.

**Chesapeake Corporation.**—Common, \$.75, quarterly, payable January 1 to holders of record December 8.

**Chesapeake & Ohio.**—Common, \$.62½, quarterly, payable January 1 to holders of record December 8.

**Pere Marquette.**—Common, \$1.50, quarterly, payable January 2 to holders of record December 8; Preferred and Prior Preferred, \$1.25, quarterly, payable February 2 to holders of record January 2.

**Pittsburgh & West Virginia.**—Common, \$1.50, quarterly, payable January 31 to holders of record January 15.

## Railway Officers

### Executive

**Mrs. Charles N. Whitehead** has been appointed assistant to the president of the Missouri-Kansas-Texas, with headquarters at St. Louis, Mo. In this position Mrs. Whitehead will devote her attention to the welfare of women employees and the comfort of women passengers.

**Samuel T. Bledsoe**, general counsel of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, has also been elected chairman of the executive committee, a position which has been vacant for a number of years. His headquarters will be removed from Chicago to New York.

**John W. Rea**, who has been promoted to executive assistant of the Missouri Pacific Lines, with headquarters at Little Rock, Ark., has been engaged in railway service for 26 years, eight of which have been with the Missouri Pacific. He was born at Wesson, Miss., on April 9, 1879, and attended Southwestern Presbyterian University, Clarksville, Tenn., for two years. He obtained his first railway experience as a brakeman on the Illinois Central at McComb, Miss., in 1904, then serving successively on the Yazoo & Mississippi Valley (now part of the Illinois Central), as a conductor at Memphis, Tenn., an engineer foreman at Greenwood, Miss., and a trainmaster at Memphis. Mr. Rea was appointed in-

**C. D. Young** has been appointed assistant vice-president of the Pennsylvania, in charge of purchases, stores and insurance, with headquarters as at present at Philadelphia, Pa. In addition to his new duties, Col. Young will continue to perform the work of general purchasing agent, the position he has held since 1927. Col. Young, who was born in Washington, D. C., in May, 1878, and is a graduate of Cornell University, has been connected with the Pennsylvania since he entered railroad service in 1900. He began his railroad career in June,



C. D. Young

1900, as a special apprentice on the Pittsburgh, Cincinnati, Chicago & St. Louis (now part of the Pennsylvania system). He was advanced through successive grades in the motive power department until June, 1910, when he was appointed to the position of assistant engineer of motive power at Pittsburgh, Pa. In October, 1911, he became engineer of tests at Altoona, Pa., and in May, 1917, he was promoted to superintendent of motive power at Wilmington, Del. Just before the armistice he was commissioned lieutenant-colonel of engineers for service in France, returning to railroad duty later in the same year. In 1919 he became superintendent of the Schuylkill division of the Pennsylvania; in March, 1920, general supervisor of stores, and in January, 1924, stores manager. Col. Young was promoted to general purchasing agent in January, 1927.



John W. Rea

spector of transportation on the Missouri Pacific at St. Louis in October, 1923, where he remained until January, 1924, when he was appointed acting superintendent of the Eastern division at Jefferson City, Mo. Several months later he was promoted to superintendent of the Missouri division at Poplar Bluff, Mo., and in May, 1924, he was transferred to the Eastern division where he remained until August 31, 1928, when he was promoted to general superintendent of the Eastern district at St. Louis, Mo.

### Financial, Legal and Accounting

**James G. Blaine**, assistant general attorney for Missouri for the Missouri-Kansas-Texas, at St. Louis, Mo., has resigned, effective January 1, to become a municipal judge at St. Louis.

### Operating

**Harold A. Sparks** has been appointed trainmaster of the Minnesota division of the Minneapolis, St. Paul & Sault Ste. Marie, with headquarters at Enderlin, N. D.

**C. D. Haupt**, assistant trainmaster on the Pennsylvania, has been transferred from the Williamsport division to the Philadelphia terminal division. **G. J. McCloskey**, yardmaster of the Philadelphia terminal division, has been promoted to succeed Mr. Haupt as assistant trainmaster of the Williamsport division.

**Michael A. Smith**, who was appointed general manager of the Pittsburgh & Lake Erie and Lake Erie & Eastern, as announced in *Railway Age* of November 8, page 1013, was born in Norwalk, Ohio, on September 7, 1872, and was educated in the public schools of Norwalk. He entered the service of the Wheeling & Lake Erie as a locomotive fireman on August 29, 1890, and was advanced to locomotive engineer in 1896. Mr. Smith left the service of the Wheeling & Lake Erie in 1899, and in March, 1900, entered the service of the Pittsburgh & Lake Erie as a locomotive inspector, serving in that capacity until June, 1901. From the latter date until November, 1902, he was traveling fireman, and then served as enginehouse foreman until June, 1904. Mr. Smith



Michael A. Smith

then became general foreman at the Glassport shops, which position he held until December, 1912, when he was transferred in the same capacity to the East Youngstown shops, where he remained until September, 1917. From September, 1917, until June, 1923, he served as trainmaster, and then became assistant superintendent of motive power. He was appointed superintendent of motive power in September, 1927, the position he held previous to his recent promotion.

**R. W. Brown**, general superintendent of the eastern lines of the Baltimore & Ohio, has been appointed general manager of the Central of New Jersey, with headquarters at Jersey City, N. J. He was born on August 5, 1883, at Carlyle, Ill., and was educated in the elementary schools of that city. He began railroad service as a laborer on the Baltimore & Ohio in July, 1901, becoming a fireman in 1902 and engineman in 1905; then air brake instructor and in 1910, assistant road foreman of engines. In January, 1914, he was appointed supervisor, loco-

motive operation; in June, 1915, trainmaster, and in October, 1917, assistant superintendent. He became superintendent of the Ohio division at Chillicothe, Ohio, in September, 1919; in October, 1921, he was transferred to the



R. W. Brown

Connellsville division. and in June, 1923, he was transferred to the Cumberland division in the same capacity. In January, 1926, he was appointed general superintendent of the eastern lines of the Baltimore & Ohio, which position he relinquished December 1, to become general manager of the Jersey Central.

**Ralph C. Miller**, acting assistant chief engineer of the Pennsylvania, with headquarters at Philadelphia, Pa., has been promoted to general superintendent of the Southwest division, with headquarters at Indianapolis, Ind., succeeding **O. P. Reese**, deceased. Mr. Miller has been in the service of the Pennsylvania for more than 29 years, beginning as an assistant in the engineering corps at Pittsburgh, Pa. He was born at Zanesville, Ohio, on December 11, 1878, and graduated from a civil engineering course at Ohio State University in 1901. After serving as assistant division engineer on the Marietta, Logansport and Indian-



Ralph C. Miller

apolis divisions, he was advanced in January, 1913, to division engineer, and served in this capacity on the Toledo, St. Louis, Chicago Terminal, Philadel-

phia and New York divisions. Mr. Miller was promoted to superintendent of the Schuylkill division in January, 1926, and was transferred to the Toledo division in April of the same year. In January, 1929, he was transferred to the Columbus division where he remained until December, 1929, when he was appointed acting assistant chief engineer. His promotion to general superintendent of the Southwest division became effective on December 1.

**F. G. Hoskins**, superintendent of the Baltimore division of the Baltimore & Ohio, has been appointed general superintendent of the Maryland district, succeeding **R. W. Brown**, recently appointed general manager of the Central of New Jersey. **C. M. Shriver**, superintendent of Baltimore terminals, will succeed Mr. Hoskins as superintendent of the Baltimore division, and **P. K. Partee**, assistant superintendent of the Baltimore division, has been promoted to superintendent of Baltimore terminals.

Mr. Hoskins, who was born in Philadelphia, Pa., on July 25, 1883, and was educated at Drexel Institute and the University of Pennsylvania, entered the



F. G. Hoskins

employ of the Baltimore & Ohio on August 1, 1907, as draftsman in the bridge department. He served successively in the capacities of assistant division engineer, assistant engineer and division engineer of the Connellsville and Philadelphia divisions until 1916, when he was appointed superintendent of the Ohio River division and later of the Wheeling division. From 1919 to 1921 he was superintendent of the Baltimore Terminals, and in 1921 was appointed superintendent of the Baltimore division, the position he held until his recent promotion to general superintendent. Mr. Hoskins spent two years and four months during the war with the American Railway Association and the United States Railroad Administration, in the handling of troops and supplies.

Mr. Shriver, who was born in Baltimore, Md., on January 9, 1893, and received his education in the Boys Latin School at Baltimore, and at Lehigh University, entered railway service in 1912, as machinist apprentice with the Baltimore & Ohio. In July, 1915, he was

appointed machinist and from January to April, 1916, he served in the capacity of inspector of fuel service. He became assistant road foreman of engines in April, 1916, and in March, 1917, was promoted to assistant trainmaster. In May, 1917, he was promoted to trainmaster. From July, 1918, to May, 1919,



C. M. Shriver

Mr. Shriver was furloughed for military service, returning to the B. & O. as trainmaster in 1919. In July, 1920, he was advanced to assistant superintendent of the Baltimore terminals, and in 1921, to superintendent, the position he recently relinquished to become superintendent of the Baltimore division.

## Traffic

**Thomas E. Dolan** has been appointed general agent for the Maine Central at Detroit, Mich.

**Ray F. Clark**, general agent in the freight department of the Grand Trunk Western at Chicago, has been promoted to assistant general freight agent of the lines in the United States, west of the Detroit and St. Clair rivers, with headquarters at the same point.

**Fred D. Miller**, assistant general passenger agent on the Illinois Central at St. Louis, Mo., has been promoted to general freight agent and general passenger agent, with headquarters at the same point. **G. R. Kimbel**, traveling passenger agent at Minneapolis, Minn., has been promoted to assistant general passenger agent at St. Louis, succeeding Mr. Miller.

## Engineering, Maintenance of Way and Signaling

**J. S. Pole** resigned as assistant engineer, track elevation, of the Chicago & North Western, with headquarters at Chicago, on November 1.

**R. A. Sheets**, assistant signal engineer of the Chicago & North Western, has been promoted to signal engineer, with headquarters as before at Chicago.

**W. C. Perkins**, division engineer of the Montana division of the Oregon Short Line, has been transferred to the Utah division, succeeding **M. H. Brown**,

Jr., who has been transferred to the Idaho division. These changes follow the absorption of the Montana division by the Utah and Idaho divisions on December 1. Headquarters of these division engineers remain at Pocatello, Idaho.

## Mechanical

The position of master mechanic of the Missouri division of the Atchison, Topeka & Santa Fe at Shopton, Iowa, was abolished on December 1 and **B. A. Eldridge**, who occupied that post, has been assigned to other duties. The jurisdiction of the master mechanic of the Missouri division has been taken over by the mechanical superintendent of the Eastern lines, **J. H. McGoff**, with headquarters at Fort Madison, Iowa.

## Purchases and Stores

**J. S. Sewall**, division storekeeper on the Northern Pacific at Glendive, Mont., has been promoted to district storekeeper at Brainerd, Minn., succeeding **H. L. Jones**, who has retired from active service. **F. G. Drieling** has been appointed division storekeeper at St. Paul, Minn., succeeding **R. G. Becker**, who has been transferred to Glendive to replace Mr. Sewall.

## Obituary

**Francis W. Lane**, formerly assistant editor-in-chief of *Railway Age* and editor of *Traffic World*, died at his home at Villa Park, Ill., on December 3, after a short illness.

**M. T. Sanders**, tax commissioner of the Northern Pacific, with headquarters at St. Paul, Minn., died in the Northern Pacific hospital in that city on November 29 at the age of 61 years.

**Earl E. Buckminster**, trainmaster on the Central division of the Missouri Pacific, with headquarters at Van Buren, Ark., died at his home in that city on November 25 at the age of 50 years.

**M. M. Murray**, auditor, assistant secretary and general freight and passenger agent of the Galveston, Houston & Henderson, with headquarters at Houston, Texas, died at St. Mary's Infirmary in that city on November 29.

**Palmer L. Randall**, superintendent of car service of the Pullman Company, with headquarters at Chicago, died at the Presbyterian Hospital in that city on November 26, at the age of 65 years. Mr. Randall had been in the service of the Pullman Company for 42 years and had been superintendent of car service since 1923. Prior to that date he served for a number of years as assistant superintendent of car service.

**Bonnie A. Little**, who retired as freight claim agent of the Chicago & North Western, with headquarters at Chicago, in 1926, died at his home at Geneva, Ill., on November 27. Mr. Little had been in the service of the North

Western for 46 years, beginning as station agent at Polk City, Iowa, in 1873. Later he was station agent at Des Moines, Iowa, leaving railway service to engage in business for himself from 1879 to 1890. He returned to the North Western as assistant claim agent at Chicago, then being promoted to assistant general claim agent at the same point in 1897. He was appointed assistant freight claim agent at Chicago in 1910, being promoted to freight claim agent in 1922.

**James Gordon Sutherland**, superintendent of transportation of the Western lines of the Canadian Pacific, with headquarters at Winnipeg, Man., died in the Winnipeg General hospital in that city on November 29, after a serious illness of a week. Mr. Sutherland was born at Aulac, N. B., on November 24, 1882, and entered railway service at the age of 15 years with an extra gang on the Intercolonial (now part of the Canadian National). Later he served on the Intercolonial as telegraph operator at various points and as assistant station agent at Sackville, N. B. He entered the service of the Canadian Pacific in 1903 as a telegraph operator at Field, B. C., and for the following 14 years he served successively in that capacity, as telegraph operator and relief agent on the Revelstoke division, as dispatcher at Revelstoke, B. C., Calgary, Alta., and Cranbrook, B. C., as chief dispatcher at Calgary and Medicine Hat, Alta., and as car service agent for the Alberta district. In 1917 he was promoted to inspector of transportation for the Western lines at Winnipeg, where he remained until 1926 when he was advanced to superintendent of the Calgary division. Mr. Sutherland was promoted to superintendent of transportation of the Western lines in July, 1928.

**Millard F. Cox**, assistant superintendent of machinery of the Louisville & Nashville, with headquarters at Louisville, Ky., died at St. Joseph's Infirmary in that city on November 26, following an extended illness. Mr. Cox, who was 64 years of age, had been connected with the Louisville & Nashville at Louisville for 19 years. He was born in Essex county, Va., and attended high school, L. S. Squire's Academy and Virginia Mechanics Institute at Richmond, Va. He taught mechanical drawing at the Virginia Mechanics Institute for a short time and from 1881 to 1884 served as an apprentice in the Metropolitan Iron Works of the Wm. E. Tanner & Co. (later the Tanner & Delaney Engine Co.), at Richmond. From 1897 to 1901 he was chief draftsman and mechanical engineer of the Richmond Locomotive & Machine Works and then became general manager and mechanical engineer of the Richmond Iron Works. In 1908 he was appointed chief draftsman and mechanical engineer of the American Locomotive Company, which had acquired the Richmond Iron Works, at Richmond, where he remained until 1911, when he became mechanical engineer of the Louisville & Nashville. Mr. Cox was promoted to assistant superintendent of machinery of that road in 1924.